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JOB STRESS AND THE SCHOOL PRINCIPAL:
A STUDY OF BURNOUT AND ITS RELATIONSHIP TO PERSONAL, SITUATIONAL, AND ORGANIZATIONAL VARIABLES

by

Ⓒ Murdock Andrew MacPherson

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ABSTRACT

The purpose of this study was to examine burnout as a stress response among school principals and the relationship between burnout and selected personal, situational, organizational, leisure time and job stressor variables.

A 56-item questionnaire was mailed to a stratified random sample of 272 school principals in Nova Scotia. The Maslach Burnout Inventory and Rizzo, House and Lirtzman Role Conflict and Role Ambiguity Scale were incorporated into the questionnaire and their appropriateness was evaluated. Responses were received from 84 percent of the sample, which represented 40 percent of the principals in Nova Scotia. Multiple regression analysis, analysis of variance and t-tests were used in the analysis of the data.

Three aspects of burnout were examined: emotional exhaustion; depersonalization; and personal accomplishment, and it was found that principals recorded moderate burnout on the personal accomplishment aspect and low burnout on the emotional exhaustion and depersonalization aspects.

When examined collectively, the personal and situational variables were found to have a significant relationship to burnout. When examined individually, relationships were found to exist on one or more of the aspects of burnout, with age, experience, years in the same school, training in educational administration, desire for promotion, propensity to leave, supervision of teachers, autonomy, opportunities for promotion and boundary spanning.

When personal and situational variables were controlled by means of regression analysis, it was found that the principals' ratings of overall job stress were the best predictors of the emotional exhaustion aspect of burnout. Overall job stress was the best predictor of the depersonalization frequency burnout; role conflict was the best predictor of depersonalization strength burnout; and role ambiguity was the best predictor of personal accomplishment burnout.

Of the eleven categories of job stressors identified by principals in an open-ended response question, six were shown to have a relationship to burnout. They were job demands, staff relations, students, teacher evaluation, getting teachers to do their jobs and mediating disputes.

Several conclusions were drawn from the study. (a) Principals in Nova Scotia were not suffering from high degrees of burnout. (b) There was a strong predictive relationship between the personal and situational variables and burnout. (c) The importance of personal variables in predicting burnout was greater than described in the literature. (d) The interpersonal demands of the job were related to burnout. (e) Overall job stress was the best predictor of the emotional exhaustion frequency, emotional exhaustion strength and depersonalization frequency aspects of burnout. (f) Role conflict was the best predictor of the depersonalization strength aspect of burnout. (g) Role ambiguity was the best predictor of the personal accomplishment frequency and strength aspects of burnout. (h) School location, school size and school type had no significant relationship to the six aspects of burnout examined. (i) The use of leisure time, personal life stress and the choice of leisure time activities had little relationship to burnout.

The findings of the study indicate that burnout was not a serious problem among principals. Furthermore burnout may be more profitably examined as a transaction between person and environment rather than as a largely environmental problem.

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CHAPTER 1

Overview and Purpose of the Study

The school principal occupies a pivotal position in the educational system, and has frequent interpersonal contact with students, teachers, senior administrative staff, parents, and the community in general. Roe and Drake (1980:v) contend that because of the variety of demands imposed by these situations school principals must deal with tension and conflict as a regular part of their job.

Maslach (1982:17), in writing about the helping professions (teachers, counsellors, therapists and others who work in a helping relationship as a major part of their job), claims that

> dealing with people can be very demanding. It takes a lot of energy to be calm in the midst of crisis, to be patient in the face of frustrations, to be understanding and compassionate when surrounded by fear, anger, or shame. While most people can find the energy to do it occasionally, and some have the resources to do it often, it is very hard to do all of the time. And yet, "all of the time" is the expectation we have of people workers.

For the school principals these expectations and demands create stress. If the individuals are able to cope with these demands and successfully meet the challenge, then stress is minimal. If, however, the principals cannot or feel that they cannot cope, stress begins to have damaging consequences. This study is an examination of the response of school principals to such long-term stress.

Recent research by Jankovic (1983) found that 88 percent of principals in his sample experienced mild to moderate levels of work-related stress. The literature, however, contains many references to the serious problem of stress among school administrators as outlined in the writings of Olsen (1983) and Wiggins (1983).

A need for further clarification of the significance of stress in the role of the principal is supported by Koff, Caffey, Olsen and Cichon (1981:1), who claim that "There has been little research on stress in the occupation of the school administrator." It was with this perspective that the following research was proposed and undertaken.

Introduction

The study of stress in the workplace has lent itself to a variety of interpretations, yet the explanation proposed by McGrath (1976:1390) is one that has gained wide acceptance. He claims that there are three embedded systems at work in the evolution of stress. They are the physical environment, the social environment, and the individual person. Each of these systems, he claims, acts as a separate potential source of stress.

McGrath (1976:1372) proposes that stress be thought of as a cycle of a complex set of processes which reflect the individual's continuous and two-way exchange with his environment -- the interaction of the three stress systems. As these systems interact, potential stressors arise when the physical and social environment make demands upon the individual.

Cooper and Marshall (1976:14-22) suggest that there are six possible environmental sources of stress at work. They are (a) factors intrinsic to the job, (b) role in the organization, (c) career development, (d) relationships at work, (e) organizational structure and climate, and (f) extra-organizational sources of stress, such as life satisfactions and crises. They also suggest that individual differences are an important consideration in determining the level of stress experienced in a particular occupation or job.

Not all stress is negative, for, as Selye (1980:128) points out, the absence of stress is death. Some stress provides us with an incentive to work, to find satisfaction and to excel. This is the positive form of stress, which is referred to as eustress. Stress that we are unable to cope with and that can have very damaging effects, Selye (1980) refers to as distress. Only negative stress was examined in this research.

In relation to stress in the workplace, Kahn (1980:79) states that "work has different meanings for different people's lives." The way in which the individuals assess the demands of their jobs and evaluate their ability to cope with these demands determine the degree of stress experienced. Beehr and Newman (1978:670) write that job stress is

> a situation wherein job-related factors interact with a worker to change (i.e. disrupt or enhance) his or her psychological condition such that the person (mind or body) is forced to deviate from normal functioning.

Attempts to evaluate the level of stress in a job have proven difficult. There are no simple ways to assess the stress experienced by individuals in the workplace. Cooper and Marshall (1976:24) claim that the study of stress "is essentially multifactorial, requiring that we focus on more than one stressor at a time, if we are to draw meaningful conclusions from our data."

The complex nature of stress is recognized in the design of this research. A model of stress proposed by Kyriacou and Sutcliffe (1978) was adopted as the conceptual framework for the study; it is outlined in detail in Chapter 2. Essentially this model provides for an examination of stress in terms of potential stressors, the experience of stress, and the response to long-term unresolved stress. The attention, in this study, was directed at determining the effects of prolonged stress upon school principals, the stress response. Specifically the stress response was examined in terms of burnout.

Burnout is a state of mind that Kahn (1978:62) refers to as a "syndrome of inappropriate attitudes towards clients and toward self." It develops over a period of time and is caused, according to Carroll and White (1981:129), by "prolonged exposure to stress and frustration." They claim that "all the various and sundry factors which generate stress and frustration for humans must be considered as potential causes of burnout."

Farber (1983:14) points out the distinction between stress and burnout when he writes that

> although the two concepts are similar, they are not identical. Burnout is more often the result not of stress per se (which may be inevitable) but of unmediated stress -- of being stressed and having no 'out', no buffer, no support system.

Burnout, although related to stress, goes beyond that concept. It is a process that, as Cherniss (1980B:21) explains,

> begins with excessive and prolonged levels of job stress. The stress produces strain in the worker (feelings of tension, irritability and fatigue). The process is completed when the worker defensively copes with the job strain by psychologically detaching themselves [sic] from the job and becoming apathetic, cynical, or rigid.

Farber (1983:15) refers to burnout as the final stage in the progression from active problem solving to "submission and distortion, to anger and depletion." As the individual finds himself unable to cope with the demands of the job, is unable to deal with the variety of negative stress conditions, then the more severe reaction, burnout, becomes manifest.

In the burnout process, when workers burn out, profound changes occur in the worker's attitude toward their work. Cherniss (1980B:24) describes this change as the psychological disengagement from work in response to job-related stress.

This study presents the results of an examination of burnout, the effect of long-term unresolved stress among school principals. One major problem in a study of burnout is dealing with the multidimensional nature of the concept of burnout. As Maslach (1982:34) points out "If burnout means everything, then it means nothing at all." For this reason it was necessary to establish a definition of burnout that was not too broad yet took into account the multidimensional nature of the concept.

The work by Maslach and Jackson (1981A) has produced a widely accepted definition of burnout as emotional exhaustion, depersonalization and the loss of a sense of personal accomplishment. It was through an examination of these aspects of burnout that the study of principals was undertaken.

Purpose of the Study

The main purpose of this study was to examine burnout as a stress response among school principals, and to examine the relationship of burnout to selected personal, situational, organizational, leisure time and job stressor variables.

There were four related purposes:

1. To examine the relationship between burnout and the personal and situational variables,

2. To examine the relationship between burnout and role conflict, role ambiguity, overall job stress, personal life stress, the use of leisure time and the identified job stressors when personal and situational variables were statistically controlled,

3. To examine the differences in burnout scores between the principals who identified with a particular job stressor or leisure time activity and those who did not, and

4. To assess the psychometric properties of the Maslach Burnout Inventory and the Rizzo, House and Lirtzman Role Conflict - Role Ambiguity Scale in a study of school principals.

Justification for the Study

From the theoretical perspective this research should contribute to knowledge about the correlates of burnout with the prospect that greater predictability of burnout may be possible.

Recent research by Anderson (1980), Crane (1981), and Westerhouse (1980), has explored burnout among teachers, social service workers and psychotherapists, but burnout among school principals has received little attention. The study of principals can potentially offer insight into the relationships between burnout and the personal, situational and organizational factors present in the job of educational administrators. Additionally it may help to establish relationships between burnout, homelife and the use of leisure time.

The need for research on burnout is outlined by Schwab and Iwanicki (1982A:5), who claim that there is considerable confusion in the study of burnout since "a lack of systematic research has left many questions unanswered."

Work by Van Sell, Brief and Schuler (1981:62) points out that no attempt has been made to relate role conflict and role ambiguity to the larger body of literature on work stress and illness. It is intended that this research will contribute to that body of literature.

From a practical perspective, an expanded understanding of the relationship between burnout and the personal, situational and organizational variables related to the job may provide direction for improving the job design, the job satisfaction and the job performance of school principals.

The idenfication of variables that may be predictive of burnout could lead to constructive recommendations on stress management, the anticipation of sources of dysfunctional stress in the educational system, and the modification of such situations for improved principal functioning.

Operational Definitions of Terms

The following operational definitions of terms serve as a basis for understanding concepts encountered throughout the study. Although a variety of definitions is available, the following best reflect the meanings as they are dealt with in this study.

Stress, according to Cox (1974:494), is the result of an imbalance between a person's perception of the demands placed upon the individual and the perception of one's ability to cope with those demands.

Burnout, according to Maslach and Jackson (1981A:1), is a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who work closely with other people in a helping relationship, as a part of their job. Key aspects of this syndrome are increased feelings of emotional exhaustion, the development of negative, cynical attitudes about their clients, and the tendency to evaluate themselves negatively, particularly with regard to their work with their clients.

Related subconcepts of burnout, defined by Maslach and Jackson (1981A:1), are emotional exhaustion, a feeling of emotional overextension and exhaustion caused by their work; depersonalization, an unfeeling and impersonal response toward recipients of their service, care, treatment or instruction; and lack of personal accomplishment, an absence of a feeling of competence and successful achievement of their work with people.

Personal variables are individual characteristics of principals, consisting of age, experience, length of time in the same school, type of training, desire for promotion and propensity to leave the school or job.

Situational variables are characteristics related to the role of the principal; these consist of type of school, size of school, time spent in classroom teaching, type of community, extent of teacher supervision, autonomy, opportunities for promotion, and frequency of contacts outside the school system.

Organizational variables are role conflict, which is, according to Kahn et al. (1964:19), the simultaneous occurrence of two or more sets of pressures such that compliance with one would make more difficult compliance with the other; and role ambiguity, which, according to Kahn et al. (1964:25), is the degree to which required information is available to a given organizational position.

Overall job stress is the expressed opinion of respondents as to how much stress they generally find in their work.

Personal life-stress is the reported occurrence of stressful situations in the recent personal life of the respondents.

Leisure time refers to an individual's out-of-school activities or interests that are unrelated to the role of school principal.

Delimitations

The study was delimited to 272 of the 577 principals listed in the *Directory of Schools in Operation 1982-83* of the Province of Nova Scotia. Only information provided by questionnaire responses of principals was used in this study.

Stress is a complex phenomenon with a number of dimensions. This study was delimited to an examination of role conflict and role ambiguity as potential occupational stressors, burnout as a stress response, and principals' perceptions of overall job stress and personal life stress.

Although stress can be either positive (eustress) or negative (distress), this study was delimited to an examination of the negative effects of stress on the school principal.

Assumptions

The following assumptions were made in relation to this study:

1. That the responses of principals would represent a distribution of scores for the instruments used and represent both high and low scores on the burnout, role conflict and role ambiguity scales, and not cluster at any point on the scales,

2. That the responses obtained from the sample of principals would be representative of the population of Nova Scotia principals, and

3. That the responses provided by principals would represent their true feelings.

Limitations

Because the study was delimited in the breadth of the concept of stress examined, there was a limitation on the interpretations that could be made regarding stress in general. The study was designed to be cross-sectional in nature; hence, generalizability to earlier or later periods of time was limited.

The methodology employed in the study required that information be collected through the use of a questionnaire. As a result the data that were obtained were limited to questionnaire responses without follow-up interviews or discussions.

The study was designed to devote attention primarily to organization-based stress, and therefore was limited in inferences that could be made about personality and non-organizational factors.

Because the subjects of the study were Nova Scotia principals, who may not be representative of all principals, generalizability of results is limited.

Organization of the Thesis

This chapter contains an introduction to the research problem, justification for the study, operational definitions of terms, and statements of delimitations, limitations and assumptions.

The conceptual models of stress are reviewed and a conceptual model for the study is presented in Chapter 2. In addition, literature considered relevant to the delimited aspects of the study is reviewed. Major topics include stress, burnout, role conflict, and role ambiguity.

The research design and methodology are presented in Chapter 3. The research instruments are also evaluated on the basis of reliability and validity reported in previous studies, and their appropriateness in this study is reviewed.

The profile of respondents is presented in Chapter 4. The personal and situational characteristics of respondents are outlined and their responses to the role conflict and role ambiguity instrument are tabluated. In addition the principals' identified job stressors and leisure time activities are provided in tabular form. From this chapter the reader should be able to determine the characteristics of the sample used in the study.

The data collected on burnout are presented and analyzed in Chapter 5. The relationships between burnout and the personal, situational, organization, leisure time and job stressor variables are examined and statistically analyzed.

The final chapter contains a summary of the study and its major findings. The findings are discussed in relation to the research problems and in relation to the literature on stress and burnout. Finally, conclusions, implications and general impressions are presented.

CHAPTER 2

Review of Related Literature and Conceptual Framework

The literature related to the study is the subject of this chapter. The literature review serves to provide a background to the study of job stress and burnout among school principals and a conceptual framework for the study. Stress studies in a number of fields are reviewed to bring together existing information, to identify inadequacies in available information and to justify the selection of the research problems of the study.

This was a descriptive and exploratory study of job stress and burnout among school principals, and, in particular, a study of the relationships between burnout role conflict, role ambiguity, and personal and situational characteristics of principals. It was considered necessary, therefore, to provide a review of the literature that (a) examines the broad field of stress, (b) establishes a conceptual framework for the study, (c) examines current information on burnout as a stress response, and (d) examines current information on role conflict and role ambiguity. Hence the review is delimited to the following major topics:

1. The general field of stress studies,
2. Conceptual models of stress,
3. Burnout as a stress response,
4. Role conflict as a potential occupational stressor, and
5. Role ambiguity as a potential occupational stressor.

Considerable literature on the topic of stress is available; however, only literature that was considered relevant to the above major topics has been included in this review.

Conceptual Definitions and Difficulties

A review of the literature indicates that there are numerous definitions of the term "stress" and a variety of research approaches to the study of stress. The following section contains an outline of several of these approaches and the development of a concept of stress that will be used throughout this study.

As Cox (1978:1) claims, the concept of stress is elusive; writers do not appear to agree on any single definition. It is a term that "is familiar to both laymen and professionals alike; it is understood by all when used in a general context but by very few when a precise account is required."

Further difficulty with the use of the term is explained by McGrath (1976:1393), who states that "the word 'stress' is a pejorative term." The connotation generally given to "stress" is that it is bad and ought to be avoided. This, however, is far from the concept of stress advanced by Selye (1980:128) who claims that

> stress is not something to be avoided. Indeed, by definition, it cannot be avoided, since during every moment of our lives some demand for life-maintaining energy exists. Complete freedom from stress is death.

Selye's (1974:27) definition of stress presents a broad application of the term as "the nonspecific response of the body to any demand made upon it." In this context stress can be physiological or psychological in origin, and is identified by the response characteristics of the organism.

In an effort to simplify the definition, Selye (1980:142) explains that stress consists of four components, as outlined in Figure 2.1. Good stress (eustress) and bad stress (distress) represent opposite ends of a stress continuum.

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The Four Basic Variations of Stress: Selye (1980:142)

Similarly, overstress (hyperstress) and understress (hypostress) represent another continuum that intersects with the eustress-distress axis. Although it is possible for an individual to be located at any position on this schematic representation, Selye (1980:141) claims that "Our goal should be to strike a balance between the equally destructive forces of hypo- and hyperstress, to find as much eustress as possible, and to minimize distress." In this context, stress is not destructive only; it may, on the contrary, represent positive forces.

Baum, Singer and Baum (1981:12) provide another outlook when they suggest that there are three different ways to study stress if it is conceptualized as having source, transmission and audience. The study of sources of stress, or stressors, emphasizes distinctions among the many agents or events that stimulate the individual. The study of transmission emphasizes the individual's interpretation of an agent or event as threatening. The study of audience emphasizes the responses of the organism to stressful situations.

In actual practice the study of stress has developed from a number of perspectives and many models have evolved. Ivanevich and Matteson (1980:33), for example, list eight different models of stress that they refer to as the biochemical model, psychosomatic model, combat model, adaptation model, disaster model, occupational model, social environment model and process model. Each provides a different perspective for the examination of stress.

Despite the apparent proliferation of approaches, Cox (1975:493-494) contends that "attempts at defining the rather vague but important concept of stress have... tended to revolve around one of three types of models." He identifies these models as the engineering model, the physiological model and the transactional model. These general models encompass many of the models outlined by Ivanevich and Matteson (1980:33).

Engineering Model

This model is derived from the physical sciences, primarily on Hooke's Law of Elasticity. In science this law describes how loads produce a deformation in metals. A stress or load is placed on a metal, and a strain or deformation results. If the strain falls within the elastic limit of the metal, the metal will return to its original condition when the stress is removed. If the strain exceeds the elastic limit, some permanent damage will result.

The analogy suggests that people have an elastic limit in their resistance to stress. If the stress exceeds that limit then permanent physiological or psychological damage may result. In this model, according to Cox (1975:493), stress "is firmly rooted in the stimulus characteristics of the environment. Stress is what happens to a person, not what happens within him."

Physiological Model

This model emphasizes the response aspect of stress. According to Cox (1975:493), it "has sought to specify the pattern of physiological and psychological response which may be taken as evidence that an individual is suffering stress." It is based, to a large extent, on the work of Hans Selye and his concept of a non-specific response to stress. This model results in study being directed primarily at what happens within the person as evidenced by the stress response.

Transactional Model

In this approach, which Cox (1975:494) claims is "in many ways a compromise between the previous two models," the interaction between man and the environment is the basic emphasis. Stress, in this context, arises when there is an imbalance between the person's perception of the demands placed upon him and his ability to cope with the demands. It is essential to realize, Cox (1975:494) claims, that "the important balance is not between actual demand and actual capability but between perceived demand and perceived capability." The imbalance that is created as a result produces certain behavioral, physiological and subjective responses. A schematic diagram of the transactional model of stress is shown in Figure 2.2.

The transactional model, as outlined here, is the basis for the discussion of stress on the following pages, and the conceptual framework for the study is developed from this transactional model of stress.

An extension of this transactional model is proposed by Howarth (1978) and cited by Cox (1978:21), who claims that there are four theoretical views of stress that may explain the imbalance between perceived demand and perceived ability to cope. This differential may have its origin in biological, social, developmental or phenomenological characteristics of the individual. In biological terms, a person may experience stress if his lifestyle differs too much from the evolutionary adaptation of primitive man. In social terms, a person may experience stress if he is exposed to conflicting social pressures, such as being forced to play inconsistent roles. In developmental terms, a person may experience stress if he has not been prepared by upbringing or education for the demands imposed by his lifestyle. In phenomenological terms, a person may experience stress if his lifestyle fails to match his aspirations or ideals.

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Figure 2.2 Transactional Model of Stress
Cox (1978:19)

McGrath (1976:1352), whose writings reflect a preference for the transactional model of stress, explains what is meant by stress in the following statement:

> Stress involves an interaction of person and environment. Something happens 'out there' which presents a person with a demand, or a constraint, or an opportunity for behavior. From a definitional standpoint, the extent to which the demand is 'stressful' depends upon several things. First, it must be perceived by the 'stressee'. Second, it must be interpreted by him, in relation to his ability to meet the demand, circumvent, remove, or live with the constraint, or effectively use the opportunity. Third, he must perceive the potential consequences of successfully coping with (i.e., altering) the demand (constraint, opportunity) as more desirable than the expected consequences of leaving the situation 'unaltered'.

McGrath (1978:1356) further explains that a stressful event is composed of a four-stage cycle outlined in Figure 2.3. Initially there is a requirement for an environmental situation which is perceived by the individual as stressful (i.e., leading to some undesirable effect if left unaltered, or to a desirable effect if modified). The focal person then chooses a response alternative and executes that response with the intention of changing his relationship to the situation. That response, McGrath (1976:1356) claims, has "some consequences for him and for the situation, though not necessarily the intended ones."

McLean (1979:37), who also supports the transactional model, draws attention to the emergence of a stressful situation. He says that "two factors help to determine if a specific stressor will produce symptoms." These two factors are context (McLean's term for the external environment) and vulnerability (the vulnerability of the individual at the time of stress). The relationship between the stressor, context, and vulnerability is constantly changing, as shown in Figure 2.4. The point at which context, vulnerability and stressor overlap, McLean (1979:39) states, "may be thought of as the individual's symptomatic response." McLean (1979:57) claims that not only does our context change over time but "our vulnerability to stressful events and conditions fluctuates constantly." Because of the variability involved in this relationship, stressors in the work setting are perceived differently by each person exposed to the situation. McLean (1979:15) contends, therefore, that "one person's stressor seems to be another person's stimulus."

The individual nature of stress is explained by Cox (1978:25) when he states that

> Stress can only be sensibly defined as a perceptual phenomenon arising from a comparison between the demands on the person and his ability to cope. An imbalance in this mechanism, when coping is important, gives rise to the experience of stress. Coping is both psychological (involving cognitive and behavioral strategies) and physiological. If normal coping is ineffective, stress is prolonged and abnormal responses may occur. The occurrences of these, and prolonged exposure to stress per se, may give rise to functional and structural damage.

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Figure 2.3 A Paradigm for Analysis of the Stress Cycle
McGrath (1976:1356)

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Figure 2.4 Symptomatic Relationship between Context, Vulnerability and Stressors
McLean (1979:39)

Coyne and Lazarus (1980:150) illustrate the complexity of the stress experience when they claim that in a stress encounter "environmental demands, cognitive appraisal processes, coping and emotional response interpenetrate, each affecting the other." Depending on how the observer punctuates the unfolding sequence, antecedent status can be assigned to any number of configurations of the variables. McGrath (1976:1372) expresses a similar view of the interactional nature of stress when he says that "we have to think of the stress cycle as a complex set of processes which reflect the individual's continuing -- and two-way -- interchange with the environment."

In the transaction that occurs between the individual and his environment, potential stressors may or may not become actual stressors for every individual. Kyriacou and Sutcliffe (1978:4) point out that "actual occupational stressors are conceptualized as a subset of potential occupational stressors, not what potential occupational stressors become."

Conceptual Model of Stress

There have been a number of conceptual models of stress presented in the literature (Dohrenwend, 1961; French and Caplan, 1973; Levi, 1973; Kegan and Levi, 1974; House, 1974; Miles, 1967A; Cooper and Marshall, 1976; Gmelch, 1977; Swent and Gmelch, 1977; Howard, Cunningham and Rechnitzer, 1977; Cox, 1978; Quick and Quick, 1979; Fineman, 1979; and Christie and McBrearty, 1979). The conceptual model of Kyriacou and Sutcliffe (1978) has been adapted for use in this study; it is a transactional model that emphasizes the interaction between the individual and the environment.

The Kyriacou and Sutcliffe (1978) model has been chosen for several reasons: (a) it is an education-based model that has been used extensively in British studies as well as in Canadian studies by Williams (1981) and Jankovic (1983); (b) it is sufficiently general to be applicable to fields outside education; and (c) it distinguishes between potential occupational stressors and stress response that allows for a more specific analysis of role conflict and role ambiguity as potential occupational stressors and burnout as a stress response.

This model, outlined in Figure 2.5, distinguishes between potential stressors (Box 1) and actual stressors (Box 3) which may result in the occurrence of stress for an individual (Box 5). Potential stressors will only result in stress if they are first perceived by the individual as constituting a threat to self-esteem or well-being (Box 2). The appraisal of the demands made upon the individual will depend upon the interaction between individual characteristics (Box 7) and his perception of the demands made upon him. The appraisal may also be affected by non-occupational stressors

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Figure 2.5 A Model of Teacher Stress
Kyriacou and Sutcliffe (1978:3)

(Box 8), potential stressors not specifically related to the job. Coping mechanisms (Box 4) are represented as attempts to deal with the actual occupational stressors by an individual. There are also response correlates of stress (Box 5) that may be psychological or physiological.

In this model Kyriacou and Sutcliffe (1978:4) claim that stress "is conceptualized as being directly related to the degree to which the coping mechanisms are unable to deal with actual stressors and the degree to which the teacher appraises that."

There are four important feedback loops in the model. Feedback (a) implies that the coping mechanism employed by the individual to deal with the actual stressor may affect the appraisal of the potential stressor. Feedback (b) implies that stress itself may affect appraisals directly or indirectly through feedback (c). Feedback (d) implies that failure to react or cope with demands may affect the individual's future appraisal of his ability to meet or cope with new demands.

Occupational Stressors

An integral component in the conceptual model of Kyriacou and Sutcliffe is that of occupational stressor which becomes the source of stress in the workplace. Cooper and Marshall (1976:14-22) indicate that it is possible to specify some categories of job stressors, and they outline what they consider to be the environmental stressors of the workplace. They claim that there are five job-related potential stressors and one extra-organizational source of stress. These are outlined schematically in Figure 2.6. The stressors are as follows:

1. Factors intrinsic to the job, such as poor physical working conditions, work overload, time pressure, and physical danger;

2. Factors involving role in the organization, such as role ambiguity, role conflict, responsibility for people, and conflicts regarding organizational boundaries;

3. Factors involving career development, such as overpromotion, underpromotion, lack of job security, and thwarted ambition;

4. Factors involving relations at work, such as poor relations with the boss, subordinates, or colleagues, and difficulty in delegating responsibility;

5. Factors involving organizational structure and climate, such as inadequate participation in decision making, restrictions on behavior, office politics, and lack of effective consultation; and

6. Factors involving extra-organizational sources of stress, such as family problems, life dissatisfaction, and crises.

To this list of potential occupational stressors Warshaw

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Figure 2.6 Elements found to be Associated with Stress

Marshall and Cooper (1979:50)

(1979:19) adds change, and McGrath (1976:1369) includes stress within the individual which he brings with him to the situation, such as anxieties and perceptual style.

Although there seems to be some consensus on the sources of occupational stress, McLean (1979:10) points out that

> clinicians would agree that the major source of stress reactions lies in the feelings which may be difficult to fully assess or understand. They would be inclined to agree that often an individual does not really know what he is feeling and certainly much of the time is unaware of why he feels as he does.

McLean (1979:21) elaborates on the complexity of assessing and identifying stress responses when he states that "reactions to stress can only be understood in the context of the job holder's entire life situation. A job is a part of life."

Stress Response

The concept of stress response is an important component of the Kyriacou and Sutcliffe model. Interactions between an individual and his environment that are interpreted to be threatening result in the experience of stress. If the stress is extreme or persistent, there are stress consequences. Cox (1978:92) cites five types of stress consequences:

1. Subjective effects such as anxiety, aggression, apathy, boredom, depression, fatigue, frustration, guilt

and shame, irritability and bad temper, moodiness, low self-esteem, threat and tension, nervousness and loneliness;

2. Behavioral effects such as accident proneness, drug use, emotional outbursts, excessive eating or loss of appetite, excessive drinking and smoking, excitability, nervous laughter, restlessness and trembling;

3. Cognitive effects such as inability to make decisions and to concentrate, frequent forgetfulness, hypersensitivity to criticism and mental blocks;

4. Physiological effects such as increased blood glucose levels, increased heart rate and blood pressure, dryness of the mouth, sweating, dilation of the pupils, difficulty in breathing, hot and cold spells, lump in the throat, and numbness and tingling in parts of the body; and

5. Organizational effects such as absenteeism, poor industrial relations, poor productivity, high accident and labor turnover rates, poor organizational climate, antagonism at work and job dissatisfaction.

Margolis, Kroes and Quinn (1974:15) similarly list five dimensions of job-related strain that could be evaluated to assess the effects of job stress upon workers. Their categories are similar to the response categories outlined by Cox.

In summation, stress as described in the transactional model of Kyriacou and Sutcliffe is made up of several components. There must be a potential stressor, perception of the stressor and negative comparison with coping ability, the experience of stress, a stress response, and, if stress is prolonged, chronic stress symptoms. Each of these components interacts with the other, making stress a highly individual and complex phenomenon.

Burnout

The study of burnout is a relatively new field that has been expanded over the past eight years by writers such as Christina Maslach and her colleagues at the University of California at Berkeley. Paine (1981:1), in fact, claims that Herbert Freudenberger "defined the term as a separate entity in 1974 and the first empirical study was published by Christina Maslach two years later."

The concept of burnout has received much attention in the literature since 1976, from a multitude of perspectives, including the loss of creativity, boredom, any form of work-related stress, and job dysfunction. From the social-psychological perspective, the meaning of burnout is much more limited. As Jackson and Maslach (1982:64) state, "research on emotional burnout has focused attention on feelings experienced by people whose jobs require repeated exposure to emotionally charged interpersonal situations."

Specifically, the definition of burnout employed by Maslach (1978:113) involves the loss of concern for the people with whom one is working. It is conceptualized as a continuous variable that Maslach and Jackson (1981A:1) view as ranging from low to high degrees of experienced feeling. It is not viewed as being either present or absent, but as being on a continuum of intensity.

In 1978 Maslach (1978:56) stated, "the research is very new. There are virtually no other studies from which one can pull an entire and exact picture of the burnout problem." Only three years later, however, Paine (1981:27) stated that the area of inquiry was "rapidly developing into a field of knowledge," and MacNeill (1981:69), claimed that much of the theoretical and methodological work related to burnout already existed within the literature of occupational stress.

There are indications, according to Maslach (1978:114), that burnout is best understood and modified in terms of the social and situational factors of the job situation. Although personality variables are seen to be relative, the range of people who are affected by burnout suggests that the causes may be more related to situational than to personality characteristics.

Burnout, according to Maslach (1978:113), is also correlated with various indices of personal stress. Emotional exhaustion is frequently accompanied by physical exhaustion, illness and psychosomatic symptoms. In addition, there is an increased use of alcohol and drugs to reduce tension and to soothe emotional turmoil. More mental illness is also reported as people seek treatment for what they believe to be their own personal failings. Increased incidences of marital and family conflict are frequently reported by people experiencing burnout.

The study of burnout, according to Maslach and Jackson (1981A:1), is centered on three reactions to the interpersonal involvement of the job. The key aspects are a feeling of emotional exhaustion, the development of cynical attitudes and feelings about clients in the work setting and the tendency to evaluate oneself negatively, particularly with regard to one's clients.

The emphasis of research has been on those working in the helping professions: psychologists, social workers, therapists, teachers and counselors. The work that these people do, according to Maslach (1978:56), "is often emotionally difficult to handle on a continuous basis - difficult because hour after hour, day after day, year after year, they are dealing with people's problems."

However, instead of being able to view the situation objectively and to assess the importance of the circumstances in which they work, helping professionals, according to Maslach (1977:15), have a strong tendency to blame themselves for the problems. They overestimate the importance of dispositional variables relative to environmental influences. Furthermore Maslach (1977:17) claims, they often view the people they work with as the cause of their own problems rather than look at the situational circumstances.

Maslach (1977:20) claims that the structure of the relationship with the client in the helping professions actually helps to promote and maintain negative perceptions of recipients. The emphasis of the interaction is the focusing on a problem, there is little positive feedback, the level of emotional stress is high, and the probability of change or responsiveness by recipients is low.

The inability to cope with this continual emotional stress results in burnout, which Maslach (1976:16) describes as the loss of all concern, all emotional feelings for the persons with whom they work so that they come to treat clients in a "detached or even dehumanized way."

Mattingly (1977:131) describes the onset of burnout in the following terms:

> The person who is burning out is usually aware of only a vague and inarticulate personal distress for which he has no name. These feelings manifest themselves in a variety of ways, for example, in reluctance to go to work, a nonspecific dissatisfaction with one's level of practice reflected in feelings that one should be achieving more or handling crisis situations with greater skill or success. Along with these vague feelings of personal-professional dissatisfaction comes a growing fatigue.

The long and short term effects of burnout are a deterioration of physical well-being, exhaustion, illness, insomnia, ulcers, migraine headaches, as well as more serious illnesses (Maslach:1976:19). From the organizational point of view, there seems to be evidence of impaired performance, low worker morale, absenteeism, and high job turnover (Maslach:1977:4). The desire to change jobs, according to Jackson and Maslach (1982:72), "supports the popular assumption that job-related stress is an economic liability for organizations."

From the client perspective, Freudenberger (1977:98) claims, burnout is a multiple threat in that it incapacitates the helper, robs the client, and propagates negativism and despair within both, while it simultaneously diminishes coping defences against that negativism and despair.

Families of the burned-out workers also suffer. Jackson and Maslach (1982:74) state that "it seems likely that one's reaction to work will partially shape one's behavior at home. And there is little doubt that the reverse is also true." Similarly, Maslach (1978:57) contends that "burnout rates soar whenever there is a failure to make a separation between work life and one's private life."

Koff et al. (1981:1) claim that the terms "executive stress" and "executive burnout", often used to describe the stress experienced by a high level business administrator, apply equally to school administrators. In addition to the interpersonal demands of the position, the professional may face further pressure, according to Cherniss, Egnatios and Wacker (1976:431), as a result of the current social questioning and criticism of professional authority and other aspects of professional status. The effect is often an intensely experienced personal problem.

Maslach and Pines (1977:105), in examining the child-care setting, state that "an understanding of the stresses facing the staff person, and the ways in which he or she copes with them, is critical for ensuring that the person delivers high-quality care and teaching to the child." It seems reasonable to extend that interpretation to all persons employed in the helping professions, including principals.

Those who work the hardest and are the most committed, according to Freudenberger (1974:161), are the most susceptible to burnout. Thus the danger is that those with the most potential may be the ones who experience burnout most intensely, with debilitating results for themselves, their clients, their families and the organizations for which they work.

For the principal there may be other factors that contribute to burnout. According to Maslach (1976:22), burnout rates are lower for those who share their personal feelings with their colleagues. This is an activity that is limited for principals and others in supervisory roles.

Burnout Studies

Hall, Gardner, Stickney and Pfefferbaum (1979:12) state that over the past decade, government and industry have shown increasing concern over the mid- and upper-level executive who suddenly is unable to perform his job despite years of training and experience. Frequently this concern is expressed in terms of burnout. Farber and Heifetz (1982:293), who use the term "burnout" in referring to the same problem, state that "burnout is becoming a problem of increasing public and professional concern. Indeed, it may well become the 'catch phrase' of the 1980's."

Perlman and Hartman (1982:283) describe burnout as a result of the interrelationship of several factors encountered in modern society. They claim that burnout is particularly apparent in the helping professions, where a great deal of the burnout investigation is taking place. According to their studies, burnout results from the interplay of several factors associated with the helping professions: (a) the intrinsic characteristics of these professions; (b) the growing importance of human service delivery; (c) the characteristics of public sector organizations, which may further place a burden on service deliverers and administrators; and (d) the physical and psychological effects of stress for all workers.

Definitions

Freudenberger (1974:159) presents the original definition of the term burnout as a job-related outcome. He claims that to burn out is "to fail, wear out, or become exhausted by making excessive demands on energy, strength or resources." Since that time it has been given a variety of interpretations. Savicki and Cooley (1982:415) place some of the resulting confusion in perspective:

> The enthusiasm generated by the concept of burnout is at least partially due to the descriptive, metaphorical nature of the term burnout, which vividly portrays the emotional consequences of stressful employment. With the growing popularity of the term, the inevitable blurring of its definitional boundaries has occurred. Attempts to understand burnout empirically will be hampered if several distinct (or indistinct) phenomena are being grouped together.

Savicki and Cooley (1982:415) claim that although there has been little systematic research on burnout, everyone seems to have an opinion. They maintain that in the current literature "75% of articles vehemently decry the ravages of burnout and only 25% actually cite data specifically relevant to their burnout conceptions."

Shaw, Bensky and Dixon (1981:2) propose that for educators the definition that is most appropriate is one in which burnout is described as "excessive exposure to ambiguous, inconsistent and/or uncontrollable demands" that occur when an individual reaches his adaptability limit.

Paine (1981:6-7) examines the definitional problem in detail, and outlines five separate definitions of burnout:

1. The Burnout Stress Syndrome (BOSS) which has identifiable clusters of feelings and behaviors most commonly found in stressful or highly frustrating work environments;

2. The Burnout Mental Disability (BOMD), which is often a serious, clinically significant pattern of the personal distress and diminished performance that is an end state of the burnout process;

3. The Burnout Process (BOP) which is the usual sequence of different stages or phases occurring in individuals, each stage presumably indicating an increase in distress and disability;

4. Burnout Etiology, which is a study of the factors in and outside the work environment that contribute to an individual's BOSS; and

5. Burnout Organizational Outcomes, which are the short- and long-term impact of the BOSS and BOMD on organizational functioning and performance.

The current and most frequently used definition is the one proposed by Maslach and Jackson (1981A:1), who have developed the Maslach Burnout Inventory. They define burnout as

> a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do people work. Key aspects of this syndrome are increased feelings of emotional exhaustion, the development of negative, cynical attitudes about one's clients and the tendency to evaluate oneself negatively with regard to one's work with one's clients.

Savicki and Cooley (1982:416) indicate support for this definition when they state that "to date, the Maslach Burnout Inventory offers the most research-based definition of burnout."

After a thorough examination of the research literature on burnout up to 1980, Perlman and Hartman (1982:293) conclude that the definition of Maslach and Jackson is the most frequently used definition found in the literature. Following a content analysis and synthesis of forty-eight research articles, they conclude that "burnout [is] a response to chronic emotional stress with three components." The components are (a) emotional and/or physical exhaustion, (b) lowered job productivity, and (c) overdepersonalization. These are, they claim, synonymous with the emotional exhaustion, depersonalization and personal accomplishment subscales of the Maslach Burnout Inventory.

Of particular note in the definition of the term is the contention by Perlman and Hartman (1982:293) that there are many things that do not belong as yet in the burnout definition. They state that

> research does not yet support inclusion of other symptoms or components authors speak to (such as low morale, negative self-concept, anger, cynicism, negative attitudes toward clientele, increased emotionality, suspiciousness, overconfidence, depression, rigidity, absenteeism, more time spent on the job, leaving job or drug use) into burnout's definition. They may be correlates but do not seem to comprise its prime dimensions.

Burnout and Stress

Much of the early research on burnout was concentrated on describing the phenomenon. According to MacNeill (1981:78), the definitional clarity that seems to have been provided by the work of Maslach has resulted in research on burnout that is moving "from the descriptive to the predictive."

In this regard there have been recent attempts to examine burnout "as a 'special' case of occupational stress" (MacNeill (1981:69)) rather than as a separate and distinct phenomenon. Burnout reflects models already developed in occupational stress. MacNeill (1981:77) maintains that in the research of the next several years it is the development of a broader concept of burnout that seems most logical and most likely to be fruitful.

Perlman and Hartman (1980:4-5) express a similar view, and advocate an expansion of the research on burnout to clarify the process by which individuals arrive at burnout, or to discover the methods by which burnout can be prevented. They contend that this could best be done "from a stress conceptualization." They further argue (1982:16) for the incorporation of burnout into a stress model:

> Burnout is best understood as one subset of stress reactions: responses to chronic emotional stress prevalent among workers in people contact occupations. Other stress writings and research must not be ignored even if their primary focus and context is not burnout. These data and conceptualizations of the causes, antecedents, and correlates of harmful stress and strategies for its constraint and prevention aid in understanding the process of burnout.

In this research, burnout is examined using the stress model of Kyriacou and Sutcliffe (1978). This is consistent with recent recommendations that burnout be studied within the context of organizational stress.

The Process

As suggested in Paine's (1981:6-7) definition of the burnout process, there seems to be some agreement that burnout is not an end state but rather a progressive growth over time. Einsiedel and Tully (1981:95) claim that "it can be inferred from the list of symptoms that the burnout phenomenon is a process involving the progressive deterioration of the individual rather than a static psychosomatic condition."

Edelwich and Brodsky (1980:42) present a similar argument for the process dimension of burnout and claim that burnout occurs over five stages, which they label as the periods of (a) enthusiasm, (b) stagnation, (c) frustration, (d) apathy and (e) intervention. Veninga and Spradley (1981:38-67) describe the stages more graphically as (a) the honeymoon, (b) the fuel shortage, (c) chronic symptoms, (d) crisis and (e) hitting the wall.

The concept of process in burnout is consistent with the definition of burnout advanced by Maslach and Jackson (1981A:1). They claim that burnout is not present or absent but rather is located on a continuum of intensity ranging from low to high.

The Syndrome

Paine (1981:5) contends that it is appropriate to refer to burnout as a syndrome in that it fits the definition set out by the American Psychiatric Association in their *Diagnostic and Statistical Manual of Mental Disorders* (1980). A syndrome is defined as "a grouping of symptoms that occur together and that constitute a recognizable condition." Maslach (1981B:100) also claims that burnout is a syndrome when she describes the research from which the Maslach Burnout Inventory was developed. She states that "the generally consistent pattern of findings that emerged from these studies led us to postulate a specific syndrome of burnout...."

The disease comparison is also proposed by Kamis (1981:57) who draws similarities with work in the mental health setting, where predisposing, precipitating and perpetuating events constitute a behavior disorder, and suggests that in the study of burnout these areas can be equated to independent, intervening and dependent variables. She further suggests that an epidemiological model of staff burnout may provide an avenue that will offer clarity to the study of burnout.

Carroll (1980:223), however, claims that the disease model is not appropriate since "burnout, simply stated, is not an individual disease. It is an ecological dysfunction and must be dealt with as such." Nevertheless, he does claim (1979:207) that the "pathogenic location" of burnout lies in the interaction between the individual and the environment, which suggests that he sees some functional utility in the medical model.

In another description of burnout, Jones (1981:122) alludes to the medical analogy when he states that "definitive experimental studies have not been undertaken to identify the causes, developmental course, consequences, and cures of burnout." The choice of words suggests a medical comparison.

Causes

Because the writing and research on burnout has primarily been descriptive, and is only recently beginning to examine causes, Perlman and Hartman (1982:302) claim that there has been little success in gaining "insight into explaining its causes, prevention and cures." There is, however, a good deal of conjecture by writers such as Freudenberger and Richelson (1980:200), who maintain that burnout is produced by "an incompatibility in the relationship of an individual to the society of which he is a part."

Veninga (1979:45) defines this incompatibility more explicitly when he says that burnout is "the failure to realize one's expectations." In this regard he claims (1979:47) that the frustrations of having responsibility without authority or the necessary resources, and without commensurate financial or psychological rewards for responsibility, are both factors that may contribute to employee burnout.

It is also contended by Veninga (1979:45) that those who do burn out tend to be idealistic individuals whom he describes as follows:

> Their realism is rooted in positive perceptions about themselves and about what they believe they can accomplish. An idealistic administrator would, for example, come into an organization with fresh ideas, vibrant enthusiasm and a strong commitment to strengthen the effectiveness of the organization.

Freudenberger (1975:74) expresses a similar view about the committed worker who takes on "too much, for too long, and too intensely" and consequently gets himself into a personal burnout trap.

Veninga suggests (1979:45) that persons in certain occupations may be more susceptible to burnout than others.

He reports on a survey of 130 occupations and states that the career of manager/administrator is one of the most stressful of all occupations. Veninga and Spradley (1981:11) add further support for this argument when they report on a study of 4473 people by the American Academy of Family Physicians in 1979. The survey indicates, they claim, that business executives normally or always work under pressure 80% of the time, and teachers and secretaries normally or always work under pressure 66% of the time.

Kahn (1978:61) also supports the view that managerial personnel may be subject to severe stress and possibly burnout. He states, basing his evidence on laboratory experiments, that "strain reaches a very high level when there is a task in which one participant has the responsibility for performance that rewards or punishes both participants in a situation." This is a function that administrative personnel are frequently required to undertake as a routine part of their job.

Lack of autonomy in the job situation has been pointed out as another potential source of stress and burnout. Maslach (1982:146) and Pines and Aronson (1981:70) indicate that perceived lack of autonomy in the job environment may be a powerful antecedent to burnout. An earlier study by Heckman (1980) seems to support that view.

Another potential cause of burnout has been identified by Shaw et al. (1981:7). Citing several studies conducted among teachers of special education students, they claim that "the data indicate that the best predictors of stress are related to role clarification."

According to Freudenberger (1974:162), boredom and routinization may contribute as much to burnout as too much work and too much variety. The implication suggested here is that there is a need for balance in the work setting to prevent conditions that may contribute to employee stress and burnout.

It is in this context that Pines and Aronson (1981:32) claim that the causes of burnout reside primarily in the environment rather than in the individual. However, environmental factors alone cannot create conditions of stress and burnout since it is the interaction between the individual and the environment that results in the symptoms of burnout becoming manifest.

Freudenberger (1975:74-78) claims that there are certain types of personalities that may be more prone to burnout than others. He identifies them as (a) the dedicated and committed individual, (b) the overcommitted individual whose outside life is sub-satisfactory, (c) the authoritarian individual, (d) the administrator, and (e) the professional.

In attempting to outline some of the causes of burnout, Savicki and Cooley (1982:416) differentiate between environmental and individual contributors to burnout. They claim that there are two environmental contributors: (a) factors related to organization, such as intensity required on the job, perceived control of the work environment, availability and use of social supports and feedback, organizational structure, and management qualities; and (b) factors related to the nature of client-helper interaction such as degree of negativity or uncooperativeness encountered and client characteristics. There are three individual contributors to burnout: (a) identification with the client, including overidentification or depersonalization; (b) the attributional process, which indicates the degree to which the individual feels that he has control over reinforcers and outcomes or is controlled by luck and coincidence; and (c) the coping styles and needs of the individual.

Hall et al. (1979:16) employ another approach in attempting to identify the causes of burnout when they describe structural similarities of organizations or units in which burnout occurs. They state that such units usually have

1. Excessive performance demands on personnel,
2. Heightened sense of personal responsibility and involvement by the staff,
3. Ambiguous lines of actual authority,
4. Assignment to staff members of responsibilities without appropriate authority,
5. Work whose nature frequently precludes successful outcomes, and
6. Tasks yielding low personal satisfaction usually outnumbering tasks yielding high personal satisfaction.

A number of recent correlational studies have attempted to identify some of the patterns that may exist in burnout. The age of personnel was a significant factor in studies by Gann (1979), Heckman (1980), and Schwab (1981); role conflict and role ambiguity, by Crane (1982), Schwab (1981), and Westerhouse (1979); length of service in the organization, by Crane (1982) and Westerhouse (1979); personal needs of self-actualization and esteem, by Anderson (1980); and ego development, sense of accomplishment, and perception of the pursuit of worthwhile goals, by Gann (1979).

In summary, the causes of burnout are related to stress, but at present the identification of specific stressors is largely speculative. Although there has been some research, there is a need for more information before the causes of burnout can be stated with assurance. Maslach (1982:145) states that burnout "is a complex interaction between individual, interpersonal and institutional factors and that all of them have to be taken into account." The investigation is further complicated, if the contention by Paine (1981:4) is true, that "the boundaries of burnout go beyond whatever it is that burnout inventories currently measure."

The problem of identification of causes is summed up by Perlman and Hartman (1982:292) who claim that a good deal of the reason for the lack of identification of causes is that "there exist few sources with inferential statistical presentations of burnout research." Further research may help to provide the necessary clarity.

Components

Although Mattingly (1977:131) claims that the person who is burning out "cannot be identified by checking off a list of symptoms or behaviors," the work of Maslach and associates has brought researchers closer to that possibility through the development of the Maslach Burnout Inventory. However, it is still recognized that burnout is a multi-dimensional concept, and the identification of some components does not mean that the concept has been fully described.

Perlman and Hartman (1982:293) state that the work that has been done by Maslach and others provides "support for the conceptualization of burnout as a multidimensional construct which when measured cannot be summed into an overall burnout 'score'."

The best that one can do at this stage of development of the concept of burnout is to recognize that it does have certain specific components. Perlman and Hartman (1980:4) identify three categories of components in the burnout construct. They are (a) physiological, focusing on physical symptoms, (b) affective-cognitive, focusing on attitudes and feelings, and (c) behavioral, focusing on behavior symptomatic of burnout.

Kamis (1981:59) delineates the components of burnout somewhat differently. She describes burnout as "the temporal balanced sum of a host of past and present, stable and transient, independent, intervening and interacting variables."

Maslach (1982:144) describes burnout by placing the emphasis on the individual within the organization. She poses three questions: (a) what role does the person play in burnout? (b) what role do other people play in burnout? and (c) what role does the organization play in burnout?

Consequences

Many consequences of stress have been reported in the literature over the past twenty-five years since the pioneering work of Hans Selye. However, the consequences of burnout are not well-established and are still being examined.

Forney, Wallace-Shatzman and Wiggins (1982:436-7) list four characteristics which they term symptoms of burnout. They are (a) extremes in attitude, the individual being either too detached or too involved, caring too much or not caring at all, (b) changes in personality or behavior, (c) physiological or psychological symptoms, and (d) a snowball effect in which an individual often unknowingly becomes more and more involved in a self-perpetuating burnout cycle.

Maslach (1982:72-85) elaborates a host of consequences of burnout related to personal, interpersonal and organizational interactions, as well as factors related to personal life away from the job.

For administrators, Veninga (1979:48) claims that a key symptom of administrative burnout is evident when administrators no longer engage in risk-taking behavior and "structure their administrative actions to promote their own security and to minimize hassles." They cause obstruction, eschew enthusiasm and resist change.

Pines and Maslach (1978:233) discuss other consequences. In a study of seventy-six staff members in a mental health setting, they found five coping strategies employed by the staff that may be viewed as consequences of stress and burnout. The techniques used were detached concern, intellectualization, compartmentalization, withdrawal, and reliance on other staff for support.

Levinson (1981:76) claims that people who are suffering from burnout generally have some identifiable characteristics. These include (a) chronic fatigue, (b) anger at those making demands, (c) self-criticism for putting up with the demands, (c) cynicism, negativity and irritability, (e) a sense of being besieged, and (f) hair-trigger displays of emotion.

The Professional

For the professional in the human service organization the potential for burnout seems to be extreme because of what Cherniss (1980:4) calls the "inherent strains and dilemmas" of the professional role in modern society. Pines and Aronson (1981:48) point to three characteristics which make people in the helping professions particularly susceptible to burnout: (a) they do emotionally taxing work; (b) they share personality characteristics that make them choose human service as a career; and (c) they have a client-centered orientation.

Furthermore, Maslach (1977:15) contends that professionals in the human service occupations "display a strong bias toward dispositional interpretations" and tend to take personal responsibility for failures even when circumstances may have precluded other outcomes. Freudenberger and Richelson (1980:152) make a similar claim when they state that "it is not easy for the men and women in the helping professions to discount a failure. Nor can they always see that there is a long distance between failing and not having a success."

Mattingly (1977:130) points out that because of the nature of their work it is essential for the professionals to be able to tolerate ambiguity if they expect to engage in creative application of their skills. "Job descriptions and role expectations that are fully professional do not specify unduly rigid patterns of worker behavior. They require the worker to be flexible and innovative." Under conditions of stress the workers become less flexible and probably less able to tolerate the ambiguity essential for the completion of their work. The compounding nature of this problem for the professional can have serious consequences.

Maslach (1977:22) also points out the particular problems that face the professional. She claims that the standard set by society for most helping professions is "so unrealistically high that it is virtually impossible to attain; instead they can only do less than that." Furthermore, Maslach claims that for the most part "the professional's work is taken for granted by the recipients", with no positive feedback to the provider of the service.

In summary, the opinion of Cherniss (1980:256) seems appropriate. He states that the professional mystique and reality are often far apart and that "society and the work setting collude in obscuring this gap." Consequently the new professional is unprepared for and unsupported in the world of work,with the result that he often faces stress and burnout.

Role Conflict

During the 1930's the role perspective, based on contributions by a number of writers in the fields of psychology, sociology and social philosophy dating back to the late nineteenth century, began to emerge as a field of study.

The work by Kahn et al. (1964) still remains the most frequently quoted source of information in the field. The concept of role episode, used by Kahn et al. (1964:26), illustrates the importance of role in interpersonal interactions:

> Role pressures are assumed to originate in the expectations held regarding the way in which the focal role should be performed. They also have perceptions regarding the way in which the focal person is actually performing. They correlate the two and further exert pressures to make his performance congruent with their expectations. These pressures induce in the focal person an experience which has both perceptual and cognitive properties and which leads in turn to certain adjustive (or maladjustive) responses. The responses of the focal person are observed by those exerting the pressures, and their expectations are correspondingly adjusted. Thus, for both the

> role sender and the focal person, the episode involves experience and response.

In any role episode Kahn et al. (1964:31) point out that organizational factors, personality factors and interpersonal factors operate as context variables in which the episode occurs. Role stress cannot be properly understood without consideration of the interaction of these factors.

An individual's role consists of his part in the total pattern of activities within an organization. The individual's role set includes the behaviors of all those members of the organization with whom he interacts. Role expectations are the behavioral responses which the role set establishes for the individual in the organization.

Toffler (1981:414) points out that the role of the individual in the organization is the result of the interaction of many factors:

> The role is not a clearly defined entity but is, rather, a creation developed by the changing effects of actual work activites, differences in expectations between the role occupant and his role senders, discrepancies between the expectations of the role occupant and the reality he encounters, and the role occupant's perception of his employment situation.

There has been considerable study of the role of the individual in the organization. It has been suggested that difficulty in assessing the expectations of the role set and the mutual exclusiveness of some role expectations may lead to role ambiguity and role conflict for individuals in an organization.

The research findings on role conflict and role ambiguity, however, are contradictory. As VanSell, Brief and Schuler (1981:51) point out, there is "a great deal of inconsistency across studies and a great deal of variance in the magnitude of the relationships between role conflict and ambiguity and different employee responses."

The following pages contain an outline and examination of role conflict and role ambiguity. Role conflict and role ambiguity are discussed with emphasis on their relationship to organization and personal variables for employees.

According to Kahn et al. (1964:19), role conflict consists of various members of the role set holding different role expectations for the focal person, an incongruity of expectations for a given role. Within the concept of role conflict there are several types that can be identified:

1. Intra-sender conflict, where different prescriptions or proscriptions from a single member of the role set may be incompatible;

2. Inter-sender conflict, where pressures from one role-sender oppose pressures from one or more other role-senders;

3. Inter-role conflict, where role pressures associated with membership in one organization are in conflict with pressures stemming from membership in other groups;

4. Person-role conflict, where organizational role requirements impose expectations that are contrary to one's personal moral code; and

5. Role overload, where various role-senders may hold legitimate expectations, but where compliance with all of them within the time limits is virtually impossible.

The emotional costs of these role conflict situations, Kahn et al. (1964:380) suggest, may be low job satisfaction, low confidence and a high degree of job-related tension. In addition, a frequent response is withdrawal, or avoidance of those who are seen as creating the conflict. Rizzo, House and Lirtzman (1970:161) further claim that specific organizational practices could be associated with high role conflict and ambiguity. They point to the importance of goal conflict, inconsistency, delay in decisions, distortion and suppression of information, and violation of the chain of command as possible causal factors.

There has been extensive research undertaken to assess the relationships between role conflict and a variety of organizational and personal variables. The review presented summarizes studies in two broad categories. The first part outlines research related to organizational characteristics under the headings of (a) job design and aspects of organizational structure; (b) relationships with others in the work setting; and (c) personnel responses or antecedents to role conflict. The second part outlines research related to personality characteristics of employees.

Organizational Characteristics

Job design. In studies by Miles (1976A)(1977), Tung and Koch (1980), and Whetten (1978), boundary spanning, the assignment of responsibility for contacts with people or groups outside the organization, has been shown to have significant correlations with role conflict. Whenever an organization requires individuals to become involved in boundary spanning, the evidence suggests that there is an increased level of role conflict among such employees.

Miles (1976B:172) proposes that when boundary spanning and integration activities are examined in relation to several other role requirements, they are the best predictors of experienced role conflict. In the same regard Rogers and Molnar (1976) contend that there is a strong relationship between interorganizational variables and role conflict.

A comparison of interorganizational and intraorganizational boundary spanning by Miles and Perrault (1980) reveals that intraorganizational boundary spanning has a stronger relationship with role conflict than interorganizational boundary spanning. In both cases the evidence seems to imply that the interorganizational and intraorganizational requirements imposed upon the individual in the workplace may lead to higher levels of role conflict among employees.

The relationship of supervisory activities to role conflict has been studied by Miles (1977). In his research he has found that the requirement for an employee to supervise others, a regular aspect of the principal's job, is significantly related to role conflict. Similarly, Oliver and Brief (1977-78) have found a significant relationship, among retail sales managers, between control over their departments and role conflict.

Opportunities for promotion and levels of pay are negatively related with role conflict according to Keller (1975). Other studies have found negative relationships between role conflict and reported influence on the job (Hamner and Tosi, 1974), and task-oriented leadership and formal organizational practices (House and Rizzo, 1972). Recent studies by Schwab (1981) and Crane (1982) have also found significant relationships between role conflict and years spent in the teaching profession.

The evidence suggests that principals who occupy boundary positions in the schools, and who frequently supervise others in a variety of organizational climates, may experience high levels of role conflict.

Relationships. The nature and quality of interpersonal relationships in the work environment has been studied by Miles (1976A) who reports a significant relationship between the quality of interpersonal relationships and role conflict. Randolph and Posner (1981) similarly report that group cohesion and supervisory support are negatively related to role conflict. In another study, Miles (1977) reports that the relative distance of role-senders and the relative authority of role-senders are significantly related to role conflicts. The nature of employee relationships, proximity of contact and formal lines of authority thus seem to influence the focal person's perceptions of role conflict.

The participation of public school teachers in decision-making at the school level has been studied by Tosi and Tosi (1970). They conclude that there is a significant inverse relationship between participation and role conflict. The less involved teachers are in decision-making and co-operative planning, the greater the level of role conflict.

Attitudes of employees toward role-senders has been studied among government research and development organizations by Miles (1975) (1976C). He found that there is reason to believe that a causal relationship exists between role conflict and attitudes toward role-senders. A meta-analysis of forty-three studies of role conflict and ambiguity undertaken by Fisher and Gitelson (1983) has resulted in the conclusion that there is consistent support for a strong relationship between performance rating by supervisors and role conflict.

Bedeian, Mossholder and Armenakis (1983:175) also emphasize the importance of the employee-supervisor relationship. They conclude that

> supervisory interaction was found to moderate the relationship between (i) intersender-role conflict and job performance, (ii) person-role conflict and job satisfaction, and (iii) ambiguity concerning behavioral outcomes and propensity to leave.

The findings of these studies lend support to the belief that the kinds of interactions which occur between employees in the work environment are correlated with role conflict. The identification of the independent variable, however, remains to be established.

Personnel. Oliver and Brief (1977-78) have examined role conflict in relation to discrepancies between what an employee should be doing and what he actually is doing. They found significant relationships between role conflict and job expectations-performance. Drory (1981) similarly has found a significant relationship between role conflict and effort-performance expectations.

Other personnel attitudes and role conflict have been studied by researchers who have found negative correlations with organizational commitment (Morris and Koch, 1979), negative correlations with performance (Bott, 1982), and negative correlations with work involvement (Morris and Koch, 1979), (Drory, 1983), job robustness (Eisenhauer, 1981), and the organizational valued outcomes of involvement, striving for quantity and striving for quality (Beehr, Walsh and Taber, 1976).

Kottkamp (1983) has found that role conflict is a good predictor of a sense of powerlessness among employees. In a study by House and Rizzo (1972) it is concluded that there is a significant relationship between role conflict and effectiveness; however, Miles (1976C) has found no significant relationships in a similar study.

Employee propensity to leave the organization has been studied by House and Rizzo (1972), and by Brief and Aldag (1976), who report that there are significant relationships between role conflict and propensity to leave. Summarizing recent research, Fisher and Gitelson (1983) concur with these results; however, an earlier study by Hamner and Tosi (1974) found no such relationship.

Personality Characteristics

Individual feelings of dissatisfaction, anxiety, fatigue and burnout have been the subject of numerous investigations which have sought to establish connections between role conflict and these emotional states. Significant correlations with job satisfaction have been found in studies by Tosi and Tosi (1970), Miles (1975), (1976A), (1976C), Tosi (1971), Bott (1982), House and Rizzo (1972), Schuler (1975), and Drory (1983). Beehr, Walsh and Taber (1976) have found similar correlations in their study of job dissatisfaction. Job satisfaction for supervisors has also been found to be related to role conflict (Keller, 1975); Hamner and Tosi (1974), however, have found no significant relationship between role conflict and job satisfaction.

In a meta-analysis of forty-three previous studies, Fisher and Gitelson (1983) conclude that there is a significant relationship between role conflict and professional and managerial job satisfaction. They also summarize the previous studies and claim that there is strong support for the existence of relationships between role conflict and professional satisfaction with promotion on the one hand, and professional satisfaction with work itself on the other. Brief and Aldag (1976), however, report no significant correlations between role conflict and satisfaction with supervisors.

Anxiety and stress experienced by employees has also been studied in relation to role conflict, Brief and Aldag (1976) have found significant correlations with job threat and anxiety, and Bott (1982), Miles (1975), (1976A), (1976C), Brief and Aldag (1976), and Beehr, Taber and Walsh (1976) have found significant correlations with job-related tension. Fisher and Gitelson (1983) summarize previous research and conclude that there is a significant relationship between role conflict and tension-anxiety for both the lower level employee and professional employee in the workplace.

A strong relationship with fatigue has been found by Beehr, Taber and Walsh (1976). Sales (1970) found a relationship with overloaded roles. Cooper and Marshall (1976:17), in a review of stress and ill health, report that there is a significant relationship between role conflict and ponderosity (excessive weight for height and age).

In two recent studies of teachers, Schwab (1981) and Crane (1982) have found that there is a significant correlation between the number of years taught and the degree of experienced role conflict.

Examinations undertaken primarily among professional people have shown that there may be some strong links between role conflict and employee burnout. Schwab (1981), Westerhouse (1979) and Kottkamp (1983) have found significant relations between role conflict and the emotional exhaustion scales of the Maslach Burnout Inventory. They report similar predictive relationships in the depersonalization subscale of the same inventory. Westerhouse (1979:70) sums up the findings of his study when he writes that "although many teachers in this particular sample do not experience role conflict often, those who do experience frequent conflicts tend also to experience burnout."

Personal predispositions or needs may also influence the experienced level of role conflict. Recent evidence indicates that these needs may operate as moderators in the reduction or intensification of the relationship between role conflict and other variables.

Randolph and Posner (1981) have found that an individual's tolerance for conflict may be an influential factor in experienced role conflict. Miles (1976A), and Johnson and Stinson (1975) have found the need for achievement to be a significant moderator. Morris and Snyder (1979), on the other hand, have found no significant relationship in a similar study.

Miles (1976A) claims that individual differences, such as occupational achievement and self-assurance, could moderate perceptions of role conflict, while Johnson and Stinson (1975) claim that the need for independence moderates the relationship between role conflict and job satisfaction.

Role Ambiguity

Kahn et al. (1965:21) define role ambiguity as the result of either nonexistent information about performance expectations or inadequate communication of such information. In this context the appraisal of one's performance and information about the interpersonal climate may be as important as the content of the job. As stated by Kahn et al. (1965:25), "a meaningful and satisfying self-identity rests in part on clear and consistent feedback from those around us." If required information for a given organizational position is lacking, then ambiguity will be experienced.

Rizzo et al. (1970:155) claim that the degree of ambiguity experienced is related to

> the predictability of the outcomes or response to one's behavior, certainty about duties, authority, allocation of time and relationships

> with others, the clarity of existence of guides, directions, policies, and the ability to predict sanctions as outcomes of behavior.

The uncertainty of a situation where insufficient information is available can create tension, anxiety and fear, as well as anger and hostility. The individual consequences of role ambiguity are predicted by Kahn et al. (1965:380) to be "low job satisfaction, low self-esteem, a high sense of futility and a high score on the tension index."

Role ambiguity has been extensively studied, often in conjunction with examinations of role conflict. In the following section the relationship of role ambiguity to facets of organizational and personal life is discussed in two broad categories. Part one outlines research related to organizational characteristics under the headings of (a) job design and aspects of organizational structure, (b) relationships with others in the workplace, and (c) personnel responses or antecedents to role ambiguity. Part two outlines research related to personality characteristics of employees.

Organizational Characteristics

Job design. A number of studies have sought to determine the relationship between role ambiguity and factors associated with organizational structure. The findings indicate that certain structural and procedural practices are related to role ambiguity among employees.

House and Rizzo (1972) report that the accepted use of formal organizational practices and task-oriented leadership both have an inverse relationship with role ambiguity; Keller (1975) found a measurable but not significant relationship with pay; French and Caplan (1970) and Fiedler and Gitelson (1983) report an inverse relationship with opportunities for advancement; and Miles (1977) claims that the relative authority of role-senders is a significant predictor of role ambiguity. Oliver and Brief (1977-78) have found a significant relationship between role ambiguity and lower levels of job control, while Rogers and Molnar (1976) have found that relations between agencies of the same organization (intraorganizational variables) are a strong predictor of role ambiguity.

An inverse relationship with performance rating of employees is reported by Brief and Aldag (1976), and an inverse relationship with performance feedback is reported by Brief and Aldag (1976) and Oliver and Brief (1977-78). In a study of principal-superintendent relationship, Caldwell and Doremus (1978:9) report similar findings on the need for feedback, and make some suggestions for school administrators. They claim that

> this research conclusively points out to a school superintendent that some type of feedback mechanism between himself and the management staff, in particular elementary principals, be

implemented and constantly maintained.

It seems apparent from these findings that there are structural aspects of organizations that may be associated with increased role ambiguity, and that these may be modified to reduce undesirable ambiguity. It is in this context that Bedeian, Mossholder and Armenakis (1983:179) suggest that "organizations can influence the extent of experienced role strains and, in turn, affect work-related outcomes by modifying situational characteristics."

The level occupied in the organization may be a strong indicator of the level of perceived role ambiguity, according to studies by Drory (1981), Hamner and Tosi (1974), Ivanevich and Donnelly (1974), Schuler (1975) and Schuler (1977B). In support of these findings, Abdel-Halim (1978:574) points out that individuals higher in the organizational hierarchy may be better able to deal with apparent ambiguity:

> Individuals in high-enriched jobs seem to acquire greater skill in coping with role ambiguity and as a result they become more involved in clarifying and defining their own role demands with subsequent feelings of relative satisfaction.

Schuler (1977B) has found that participation in decision-making is a powerful moderator of the perceived role ambiguity of employees. In a related study Schuler (1977A) claims that incongruent matches of task, structure, and technology may result in higher levels of role ambiguity among employees, and suggests, regarding job design, that both organizational structure and task design influence the level of role ambiguity experienced.

High levels of role ambiguity among employees have been shown to be related to little effort in the job in studies by Beehr, Walsh and Taber (1976), as have reduced levels of participation, by Tosi and Tosi (1970), and reduced levels of involvement, increased nonparticipation by employees, and reduced job involvement, by Beehr, Walsh and Taber (1976). Drory (1981) concurs with these findings regarding job involvement.

In general it appears that high levels of role ambiguity are related to a number of organizational design factors that affect both employees and the organization. The influence of role ambiguity upon organizations is suggested by French and Caplan (1973:35):

> Role ambiguity may have far-reaching consequences beyond the strain which the individual experiences -- consequences such as turnover of personnnel and poor co-ordination, which directly affect the efficiency and operating costs in any modern organization.

Relationships. In a number of investigations relationships among employees have been shown to have strong interaction with the perceived level of role ambiguity of individuals in the organization.

In examining high levels of role ambiguity, Keller

(1975), and Fisher and Gitelson (1983) suggest correlates of role ambiguity to be reduced satisfaction with co-workers; Drory (1981) suggests reduced satisfaction with supervisors; Randolph and Posner (1981) suggest reduced supervisory support; and Miles (1975)(1976B) suggests negative attitudes towards role-senders.

Drory (1981) has found that an increased level of role ambiguity is associated with reduced satisfaction with people. In addition, Randolph and Posner (1981) have found that group cohesion declines as role ambiguity increases.

Several moderator variables have been identified by researchers. Bedeian, Massholder and Armenakis (1983) have found that supervisory interaction and peer group interaction both moderate the level of experienced role ambiguity. Beehr (1976) claims that group cohesion may be a moderator, while French (1980) claims that relations with subordinates may moderate the levels of role ambiguity experienced.

Personnel. The examination of role ambiguity in relation to employee behaviors that influence the organizational operation has been a topic of investigation for several researchers.

Propensity to leave the organization or job was found to have a significant relationship with role ambiguity in studies by Brief and Aldag (1976), Margolis, Kroes and Quinn (1975), House and Rizzo (1972), Ivanevich and Donnelly (1974), and Lyons (1971). Correlations have been identified with organizational commitment by Oliver and Brief (1977-78), Morris and Koch (1979), and Fisher and Gitelson (1983); general job interest, by Ivanevich and Donnelly (1974); low motivation to work, by Margolis, Kroes and Quinn (1974); perceived performance effectiveness, by Miles (1976B); perceived organizational effectiveness, by House and Rizzo (1972); and striving toward quality, by Beehr (1976).

French and Caplan (1973), as a result of their investigation, state that role ambiguity is significantly related to lower utilization of administrative and leadership skills as well as lower utilization of intellectual and information skills. Randolph and Posner (1981), however, have found an inverse relationship between role ambiguity and ability. Kottkamp (1983) has found that role ambiguity was a significant predictor of powerlessness among employees. Eisenhauer (1981), in a study of school principals, has found that there is a significant inverse relationship between role ambiguity and the perception of job robustness, the perceived dramatic content of the job.

Recent studies of burnout among educators have resulted in findings of significant correlations between role ambiguity and aspects of the burnout phenomenon as outlined by Maslach and Jackson (1981A). Schwab (1981) and Kottkamp (1981) have found significant relationship between role ambiguity and the emotional exhaustion associated with burnout, while Schwab (1981) has found relationship with depersonalization and personal accomplishment subscales as well.

Personality Characteristics

Individual states of dissatisfaction, fatigue, anxiety, tension, and other personality-related variables have been examined in relation to role ambiguity.

Consistent relationships between high levels of role ambiguity and reduced job satisfaction have been reported by French and Caplan (1970), (1973), House and Rizzo (1972), Hamner and Tosi (1974), Miles (1975), (1976B), Oliver and Brief (1977-78), Schuler (1975), and Kahn et al. (1964). Studies of job dissatisfaction by Beehr, Walsh and Taber (1976) and Margolis, Kroes, and Quinn (1974) indicate similar findings. Studies by Drory (1981), Keller (1975), Lyons (1971), and Organ and Greene (1974) report significant relationships in studies of satisfaction with work, while Margolis, Kroes, and Quinn (1974) have identified a relationship between role ambiguity and life satisfaction. Keller (1975) has also found a measurable but not significant relationship with satisfaction regarding supervision.

Job-related tension has been found to be a correlate of role ambiguity in studies by Beehr, Walsh and Taber (1976), Brief and Aldag (1976), Ivanevich and Donnelly (1974), Lyons (1971), Miles (1976B), (1975), and Kahn et al. (1974). Similar findings have been made with anxiety-stress in studies by Brief and Aldag (1976), House and Rizzo (1972), and Hamner and Tosi (1974).

Other undesirable correlates of role ambiguity have been identified. Correlations have been shown to exist between role ambiguity and fatigue, by Beehr, Walsh and Taber (1976); low self-confidence and an increased sense of futility, by Kahn et al. (1974); depressed moods, by Beehr (1976); lowered self-esteem, by Margolis, Kroes and Quinn (1974); and job-related threat to mental and physical well-being, by French and Caplan (1970), (1973).

The need for clarity among employees was discovered to be a moderator of the relationship between role ambiguity and other employee responses in studies by Ivanevich and Donnelly (1974), and Miles and Petty (1976).

The need for achievement has been identified as a moderator in the relationship between role ambiguity and job satisfaction in a study by Johnson and Stinson (1975). However, Morris and Snyder (1979) claim that their study has found that the need for achievement and the need for autonomy are not significant moderator variables.

Randolph and Posner (1981) suggest that tolerance for conflict may help explain the level of role ambiguity experienced by employees. Organ and Greene (1974), however, suggest that the locus of control of the individual may be a reliable predictor of role ambiguity among employees. In another study, Organ (1981:585) has found that personality factors such as neuroticism and locus of control have effects upon role adjustment that he claims "may be equal to or exceeding the effects of identifiable environmental variation."

The Study of Role Conflict and Role Ambiguity

The research on role conflict and role ambiguity has been presented as it relates to organizational and personal variables. There seems to be support for the suggestion by French and Caplan (1973:35) that role strain may lead to negative consequences for both the individual and the organization.

In a comprehensive review of the literature and research on role conflict and role ambiguity, VanSell, Brief and Schuler (1981:66) arrive at the following conclusions:

1. Role conflict and ambiguity appear to cause lower productivity, tension, dissatisfaction and psychological withdrawal from the work group;

2. Individual differences in perception of and

adaptability to the work environment as well as the need for clarity are likely moderators of the relationship between role-sender focal-person relationship; and

3. It appears that experienced role conflict and ambiguity are partially a function of a complex interaction of job context, leader behavior, and organizational structure.

Although role conflict and role ambiguity have been extensively studied, there continues to exist considerable confusion as to the relative influence of personality and organizational variables. It appears that personal, situational, and organizational factors interact in an individual's perception of role conflict and role ambiguity. An examination of these interrelated variables in the role of the school principal may provide insight that could lead to greater satisfaction and effectiveness.

Summary

This chapter presents a review of the literature and research related to a) the broad field of stress, b) conceptual models of stress, c) burnout, and d) role conflict and ambiguity.

Conceptual definitions are described in the opening section of the chapter with distinctions made between three conceptual perspectives: the engineering model, the physiological model, and the transactional model.

The Kyriacou and Sutcliffe (1978A) teacher stress model is described and adopted as the conceptual model for this study. It was chosen because a) it is an education-based model that had been used in studies in Britain and Canada, b) it is sufficiently general to have applicability to areas outside education, and c) it distinguishes between potential occupational stressors and stress response and thus is well suited for a study of role conflict and ambiguity as potential occupational stressors and burnout as a stress response.

The literature on burnout is examined extensively from the perspective that burnout is a stress response. The process, causes, components, and consequences of burnout are described and the concept of burnout as a syndrome is outlined. Literature and research related to burnout among professionals is described. Burnout, it was found, is a relatively new area of research in the social sciences, and only in recent years has it gained respectability as an area of legitimate study. It is now, however, the subject of extensive research, especially as it relates to members of the helping professions.

Literature related to role conflict and ambiguity is reviewed under two major headings, organizational characteristics and personality characteristics. Although there is considerable consensus on the correlates of role conflict and ambiguity, the interaction of variables leads to difficulty in establishing relationships that remain consistent from one examination to another. The job setting, level in the organization, supervisory requirements, boundary-spanning requirements and relations with others interact with individual characteristics in determining the relative level of role conflict and ambiguity among employees. The factors at work in the role of the school principal require further clarification before steps to alleviate dysfunctional role conflict and ambiguity can be undertaken.

The review of literature provides extensive evidence that conditions exist in the workplace that may be described as stress, burnout, role conflict or role ambiguity. The precision of these terms and the correlates of these conditions, however, need more clarification if greater understanding is to be achieved.

CHAPTER 3

Research Design, Methodology and Instrument

This chapter contains an outline of the study including research design and methodology. In addition a critical assessment of the research instruments is provided. To address these topics the chapter is divided into three major sections: research design, research methodology, and the research instrument.

Research Design

Purpose of the Study

The purpose of the study was the examination of burnout as a stress response among school principals, and the relationship of burnout to personal, situational, organization, leisure time and job stressor variables. There has been a great deal written about stress and Selye (1980:128) claims that stress is unavoidable and there are many potential stressors in the work place and home life. It is the relationship between these situations and dysfunctional stress or burnout that is emphasized in this study.

The major objective of the research was to identify factors associated with burnout experienced by school principals. The variables examined in this relationship are personal characteristics (age, experience, length of time in the same school, type of training, desire for promotion, and propensity to leave), situational characteristics (school type, school size, time spent teaching, type of community, extent of teacher supervision, autonomy, opportunities for promotion, and frequency of contacts outside the school system), role conflict, role ambiguity, overall job stress, personal life stress, identified job stressors and the use of leisure time.

Specific Objectives

In order to achieve the overall purpose of the study it was necessary to satisfy the following specific objectives:

1. To identify and describe the experienced level of burnout for individual principals and the correlation between burnout and the other variables studied;

2. To identify and describe (a) the experienced level of role conflict and role ambiguity for individual principals, (b) selected personal and situational factors associated with individual principals, (c) the experienced levels of overall job stress and personal life stress for individual principals, (d) the manner in which principals spent their leisure time, and (e) the factors which principals reported to be sources of job stress; and, a related

objective,

3. To examine the psychometric properties of the Maslach Burnout Inventory and the Rizzo, House and Lirtzman Role Conflict and Role Ambiguity Scale.

Nature of the Study

The study was designed to be exploratory and descriptive. It was exploratory in the sense explained by Kerlinger (1973:406) in that it seeks "to discover significant variables in the field situation, to discover relations among variables, and to lay the groundwork for later, more systematic and rigorous testing of hypotheses." Burnout was examined to determine the relationships that existed with role conflict, role ambiguity, personal and situational variables, overall job stress, personal life stress, the use of leisure time and identified job stressors. Well-developed studies of burnout have only recently begun to appear in the literature and the results have been inconclusive. This research may lead to the formulation of more precise research hypothesis that can be tested in subsequent examinations.

The study was descriptive in that (a) it provided a picture of the sample of Nova Scotia principals, (b) it outlined the degree of burnout experienced by principals in the sample, and (c) it identified personal, situational, job stress and personal life variables that were associated with burnout among the sample of principals.

The Research Problem

The major purpose of the study was to examine burnout among school principals.

To address the research problems it was necessary to identify the extent of burnout experienced by principals. As outlined in the conceptual framework and review of literature, burnout was treated as a stress response. Six aspects of burnout, as described by Maslach and Jackson (1981A), were studied: emotional exhaustion frequency, emotional exhaustion strength, depersonalization frequency, depersonalization strength, personal accomplishment frequency and personal accomplishment strength.

Using this concept of burnout, the following problem was investigated:

> To what extent do principals experience burnout and what is the relationship of burnout to personal, situational, organizational, overall job stress, personal life stress, leisure time and job stressor variables?

In seeking to address this problem the following sub-problems were investigated:

1.1 What is the relationship between burnout and the selected personal variables associated with principals?

1.2 What is the relationship between burnout and the selected situational variables associated with principals?

1.3 What is the relationship between burnout and role conflict, role ambiguity, overall job stress, personal life stress, leisure time and identified job stressor variables when personal and situational variables are statistically controlled?

1.4 What is the relationship between burnout and job stressors identified by principals?

1.5 What is the relationship between burnout and leisure time activities identified by principals?

Research Variable Relationships

As outlined in Chapter 2, the conceptual framework for the study was based on the work of Kyriacou and Sutcliffe (1978). The study was delimited to an examination of stress in relation to burnout, role conflict, role ambiguity, overall job stress, personal life stress and identified job stressors. Other aspects of stress were not explored.

Also examined were personal and situational characteristics of principals, and the use of leisure time. The factors examined are summarized below and their relationships with the Kyriacou and Sutcliffe model are outlined schematically in Figure 3.1.

Burnout as a stress response. Burnout is described as the effect of prolonged and unrelenting stress, a response to stress.

Research Variables

(a) Burnout
(b) Role Conflict and Role Ambiguity
(c) Personal Variables
(d) Situational Variables
(e) Overall Job Stress
(f) Personal Life Stress
(g) Use of Leisure Time
(h) Worry About School
(i) Stressful Aspects of the Job
(j) Leisure Time Activities

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Figure 3.1 The Model of Teacher Stress and Relationships Explored Adapted from Kyriacou and Sutcliffe (1978:3)

Role conflict and role ambiguity as potential occupational stressors. Role conflict and role ambiguity are often described as antecedents to stress, as potential sources of on-the-job stress. The presence of role conflict or role ambiguity may lead to undesirable levels of stress on the job.

Personal variables. Personal variables are individual characteristics of the person who occupies the position of school principal.

Situational variables. This refers to school or organizational characteristics associated with the particular school or system in which the principal works.

Overall job stress. This refers to the principals' assessment of the degrees of stress associated with their role as school principal.

Personal life stress. This refers to the principals' assessment of the degree of stress in their personal life away from school.

Use of leisure time. This refers to the amount of time spent away from the job of school principal in pursuits unrelated to the job.

Worry about school. This refers to the amount of time spent away from the job of school principal in worrying about matters related to the job.

Stressful aspects of the job. This refers to the tasks which are identified by principals as being stressful or very stressful.

Leisure time activities. This refers to the recreational activities principals engage in which they indicate are a source of relaxation.

The Instrument

The questionnaire used to collect data for the study consists of four distinct parts: (a) questions related to personal and situational variables, (b) questions related to burnout, (c) questions related to role conflict and role ambiguity, and (d) questions related to overall job stress, personal life stress, the use of leisure time, worry about the job, job stressors and leisure time activities.

Part (a) contains fourteen questions about personal and situational characteristics of principals. Part (b) contains twenty-two questions on burnout identical to questions in the Maslach Burnout Inventory. Part (c) contains fourteen questions on role conflict and role ambiguity identical to questions in the Rizzo, House and Lirtzman Role Conflict and Role Ambiguity Scale. Part

(d) contains six questions on overall job stress, personal life stress, use of leisure time, worry about school, job stressors and leisure time activities.

A copy of the instrument is included in Appendix 1.

Respondents

In order to obtain a cross-section of the population of principals in Nova Scotia a stratified random sample of the 577 principals in the province was selected. Schools were categorized by size and type, as shown in Appendix 2, and schools selected from each cell in the size and type matrix. In all, 272 schools were selected for the sample.

The method of selecting respondents was guided by (a) the need to obtain a representative sample of principals, (b) the need to have all types of schools in the sample, and (c) the need to have all sizes of schools in the sample.

Research Methodology

Data Collection Methods

Data for this study were collected by means of a 56-item questionnaire that was mailed to the survey sample. Two questions were open-ended where principals were asked to identify (a) the aspects of the job they considered most stressful and (b) the activities that they considered most relaxing in their leisure time. All other questions required respondents to select the most appropriate response on scales with from four to seven possible choices.

Selection of Sample

Schools were classified according to enrolment, with size increments of one hundred being the guideline for school differentiation. This provided for ten categories of school size. Schools were then classified according to type of school, either elementary, junior high, senior high or combinations of elementary, junior and senior high. There were seven categories of school type identified.

Responses were obtained from each type and size of school. A matrix of school type and size was prepared and the sample selected from the grid. The grid is shown in Appendix 2.

Where there were fewer than ten principals in any cell in the matrix all principals in that cell were surveyed. Where there were more than ten principals in a cell a random sample of ten principals was surveyed.

The number of principals surveyed was 272 distinguished by categories of school enrolment and school type as outlined in Appendix 3.

Permission

Although formal permission was not required to conduct the survey among principals in Nova Scotia, a letter of intent was mailed on April 21, 1983 to Mr. M. J. Woodford, Chief Director of Public School Operations for the Province of Nova Scotia. A reply was received from Mr. Woodford on May 3, 1983 acknowledging that the research was to be conducted and indicating that he saw no reason for objection. Copies of these letters appear in Appendix 4 and 5.

Data Collection Procedures

A questionnaire was mailed to the study sample of 272 principals on October 1, 1983. Included in the mailing were (a) an introductory letter, (b) the questionnaire, (c) a stamped and addressed reply card, and (d) a stamped and addressed envelope to return the questionnaire.

Principals were asked to complete the questionnaire and to mail the reply card at the same time that the questionnaire was returned. Through the use of the reply card the responses to the questionnaire could be anonymous yet it would be possible to follow up with those who did not reply.

On October 15 follow-up letters were sent to 116 principals who had not returned reply cards. At that point, however, all but 97 questionnaires had been returned.

By November 15 replies had been received from 229 principals out of the 272 surveyed, a return rate of 84 percent. Five of the replies could not be used. Thus 224 questionnaires were used in the data analysis, 82 percent of the principals surveyed.

Data Analysis

Quantitative analysis. As indicated previously, the study was descriptive and exploratory. The study was descriptive in the sense that it sought to identify the degree of burnout among principals and the characteristics of principals in terms of role conflict, role ambiguity, personal, situational, overall job stress, personal life stress, leisure time and identified job stressor variables. In that regard statistical techniques such as means, standard deviations and frequencies were employed for the analysis of the data.

The study was exploratory in the sense that it sought to gain insight into the factors associated with principal burnout. In that regard, statistical techniques such as multiple regression analysis, analysis of variance and t-tests were employed for the analysis of data.

A factor analysis and a Spearman-Brown reliability estimate were also undertaken to assess the factorial integrity and reliability of the Maslach Burnout Inventory and the Rizzo, House and Lirtzman Role Conflict and Role Ambiguity Scale.

Qualitative analysis. There were two open-ended response questions in the questionnaire that required categorization on the basis of the responses obtained. Principals were asked to identify (a) the aspects of the job that they considered to be most stressful and (b) the leisure time activities that they engaged in that they considered to be most relaxing.

All responses to these questions were listed and grouped into categories of responses. The categories were regrouped to the point where there were eleven categories of job stressors and nine categories of leisure time activities.

Presentation of Findings

The findings of the study are presented in Chapters 4 and 5. The descriptive analysis is outlined in Chapter 4 as a profile of respondents. Frequencies, means, and percentages of responses by principals are presented to describe the character of the respondents.

The exploratory data analysis is outlined in Chapter 5. The findings related to burnout and its relationship to personal, situational, role conflict, role ambiguity, overall job stress, personal life stress, worry about school, leisure time and job stressor variables are presented. Multiple regression analysis, analysis of variance and t-tests are used in the treatment of data.

Research Instrument

The Questionnaire

The questionnaire used to collect data in this research consists of four sections, each of which served a specific purpose.

Part I: Background information. This section consisted of questions related to personal and situational characteristics of principals. Personal characteristic variables measured were age, experience as a principal, length of time in the same school, type of training, desire for promotion and propensity to leave. Situational characteristic variables measured were type of school, size of school, time spent in classroom teaching, type of community, extent of teacher supervision, autonomy, opportunities for promotion and frequency of contacts outside the school system.

Part II: Burnout. This section consisted of twenty-two questions related to burnout based on the verbatim wording of the *Maslach Burnout Inventory*. The name of the survey was changed from "The Human Services Survey" to "View of the Job" and was copied directly from the *Maslach Burnout Inventory* with the permission of the publisher, Consulting Psychologists Press. The letter of permission is included in Appendix 6.

Two responses were requested for each question. Respondents were asked to indicate how strongly and how frequently they experienced specific attitudes related to their job. Responses were on a six-point scale from never to every day for the "how often" question and on a seven-point scale from never to major/very strong for the "how strong" questions.

Six separate burnout scores were obtained from this survey. Scores for burnout in terms of emotional exhaustion frequency, emotional exhaustion strength, depersonalization frequency, depersonalization strength, personal accomplishment frequency and personal accomplishment strength were calculated from the responses.

Part III: Role conflict and role ambiguity. This section consisted of the Role Conflict and Role Ambiguity Survey developed by Rizzo, House and Lirtzman and described in the Administrative Science Quarterly, Volume 15, 1970. The scale has been used extensively in research. It was used in this study with the permission of J. R. Rizzo of Western Michigan University in Kalamazoo, Michigan.

The survey consisted of statements which respondents were asked to rate on a seven-point scale ranging from definitely not true of my job to extremely true of my job. From the responses two scores were obtained, one for role conflict and one for role ambiguity.

Part IV: Job stress and personal life. This section consisted of six questions related to job stress and personal life.

Question 1 and question 2 dealt with overall job stress and personal life stress. Respondents were asked to rate their overall job stress and personal life stress on a five-point scale from not stressful to extremely stressful.

Question 3 and question 4 dealt with the use of evenings and weekends for personal interests unrelated to school work and the extent of worry about school when away from the job. Responses were on a five-point scale from rarely to usually.

Question 5 and question 6 were open-ended response questions where respondents were invited to list (a) the aspects or tasks related to the job of principal that were considered most stressful and (b) the leisure time activities that were considered most relaxing.

Validity and Reliability

The *Maslach Burnout Inventory* used in Part II of the questionnaire was developed by Maslach and Jackson over a period of years and eventually made available to the public in 1981. It is, according to Paine (1982:15), "the most widely used scale" in research on burnout.

Maslach and Jackson (1981B:99) report that the scale has "both high reliability and validity as a measure of burnout." Iwanicki and Schwab (1981:1167) similarly reported that "when used in education, the Maslach Burnout Inventory measured the same basic constructs as those identified by Maslach and Jackson in their work in the helping professions."

Golembiewski and Munzenrider (1981:240) also claim that their analyses "variously and robustly support the usefulness of the MBI items." Jones (1981:109), in referring to the Maslach Burnout Inventory subscales, further states that "they have been proven highly reliable and have been validated against numerous criteria under a variety of different validation strategies."

Reliability data on the Maslach Burnout Inventory is reported by Maslach and Jackson (1981A:7). Internal consistency was established by Cronbach's coefficient alpha for each subscale. The results were as follows: emotional exhaustion frequency .90 and intensity .87; depersonalization frequency .79 and intensity .76; and personal accomplishment frequency .71 and intensity .73.

Test-retest reliability for subscales were also reported. They are as follows: emotional exhaustion frequency .82 and intensity .53; depersonalization frequency .60 and intensity .53; and personal accomplishment frequency .80 and intensity .68. All coefficients were significant beyond the .001 level.

Concurrent validity was reported by Maslach and Jackson (1971A:7), indicating that the correlations provide substantial evidence for the validity of the instrument. Discriminant validity was tested in relation to job dissatisfaction and it was found that less than 6 percent of the variance in burnout was accounted for by job dissatisfaction.

The responses to the _Maslach Burnout Inventory_ in this research were subjected to a test of reliability. An internal consistency method known as the odd-even split-half coefficient method was used. The Spearman-Brown coefficient was computed separately for the frequency and strength scores obtained from the inventory. The Spearman-Brown coefficient was .84 for burnout frequency and .88 for burnout strength. This indicated that the _Maslach Burnout Inventory_ was an adequately reliable instrument for this study.

The Role Conflict and Role Ambiguity Survey used in Part III of the questionnaire was developed by Rizzo, House and Lirtzman in 1970 and used extensively in research since that time.

Schuler, Aldag and Brief (1977:126) report on an examination of the psychometric properties of the scale and conclude that "consistent support was found for each scale across six samples." House, Levanoni and Schuler (1982:21) similarly conclude that the scale has "sound psychometric properties."

Schuler, Aldag and Brief (1977:124) report test-retest reliabilities between samples as .44 ($p < .001$) for role conflict and .40 ($p < .001$) for role ambiguity. They claim that these results "indicate reasonable stability for the two scales."

House, Levanoni and Schuler (1982:5) claim that internal reliability estimates range from .87 to .56 with only one role conflict and one role ambiguity estimate less than .7. They also claim that construct validity of the scales is established by the vlidity of the factorial independence of the scales and the pattern of the relationship between the scales and other variables. House, Levanoni, and Schuler (1982:6) claim as a result that, "Construct validity of the two scales is quite favorable."

The responses to the Role Conflict and Role Ambiguity Survey in this research were subjected to a test of reliability. An internal consistency method known as the odd-even split-half coefficient method was used. The Spearman-Brown coefficient for the overall scale was .84. This indicated that the Role Conflict and Role Ambiguity Survey was an adequately reliable instrument for this study.

Factor Analysis

To determine the suitability of the Maslach Burnout Inventory and the Role Conflict and Role Ambiguity Survey in this research a factor analysis of the responses by principals was undertaken.

The Maslach Burnout Inventory. Principals' responses on the burnout measure were factor analyzed using varimax rotation. The purpose of this analysis was to determine if the responses obtained from principals in this sample produced the same factors as those established in the original development of the instrument.

The burnout scale was treated in two separate parts, burnout frequency and burnout strength. The results of the factor analysis for the frequency dimension of the scale are shown in Table 3.1.

Of the 22 items in the inventory all but three of the items loaded above .40 on the factors indicated by the test developers. All eight items in the personal accomplishment factor loaded on the expected factor. Eight of the nine items in the emotional exhaustion factor loaded in the expected factor. Three of the five items in the depersonalization factor loaded on the expected factor.

Thus, on the frequency dimension of the burnout scale, the three factors identified in the original instrument

Table 3.1

Varimax Factor Matrix of the Maslach Burnout Inventory for Personal Accomplishment, Emotional Exhaustion and Depersonalization Frequency

	Work Related Situations	Factors and Factor Loadings		
		1	2	3
		Personal Accomplishment	Emotional Exhaustion	Depersonalization
1.	I feel emotionally drained from my work.	.081	(.689)*	.188
2.	I feel used up at the end of the workday.	.190	(.631)*	.192
3.	I feel fatigued when I get up in the morning and have to face another day on the job.	.029	(.658)*	.075
4.	I can easily understand how my recipients feel about things.	(.457)*	.275	.051
5.	I feel I treat some recipients as if they were impersonal objects.	-.031	.151	(.445)*
6.	Working with people all day is really a strain for me.	.053	(.565)*	.224
7.	I deal very effectively with the problems of my recipients.	(.730)*	.052	.110
8.	I feel burned out from my work.	-.024	(.726)*	.051

	Work Related Situations	Factors and Factor Loadings		
		1	2	3
		Personal Accomplishment	Emotional Exhaustion	Depersonalization
9.	I feel I'm positively influencing other people's lives through my work.	(.706)*	-.007	-.028
10.	I've become more callous toward people since I took this job.	-.004	.211	(.605)*
11.	I worry that this job is hardening me emotionally.	-.030	.231	(.626)*
12.	I feel very energetic.	(.653)*	-.070	.069
13.	I feel frustrated by my job.	.073	(.648)*	.259
14.	I feel I'm working too hard on my job.	.107	.388*	.330
15.	I don't really care what happens to some recipients.	.022	.059	.249*
16.	Working with people directly puts too much stress on me.	-.019	(.485)*	.326
17.	I can easily create a relaxed atmosphere with my recipients.	(.819)*	.064	.001
18.	I feel exhilarated after working closely with my recipients.	(.744)*	.014	-.059
19.	I have accomplished many worthwhile things in this job.	(.612)*	-.112	.039
20.	I feel like I'm at the end of my rope.	-.138	(.591)*	.241

		Factors and Factor Loadings		
		1	2	3
	Work Related Situations	Personal Accomplishment	Emotional Exhaustion	Depersonalization
21.	In my work, I deal with emotional problems very calmly.	(.608)*	.084	-.053
22.	I feel recipients blame me for some of their problems	.143	.343	.365*
Eigenvalues		4.614	3.586	.811
Percentage of Total Variance		23.6	18.6	6.5
Cumulative Percent of Variance		23.6	42.2	48.7

* Items identified on original instrument.

development factored as predicted when used with school principals. Of the twenty-two items, nineteen loaded in the predicted direction and no item loaded on more than one factor. The depersonalization factor was the weakest factor. Overall, however, the analysis demonstrated that on the frequency dimension of burnout the scale measures those factors that the developers of the instrument identified.

The results of the factor analysis for the strength dimension of the scale are shown in Table 3.2. Of the twenty-two items in the inventory, all but four of the items loaded above .40 in the direction indicated by the test developers. All eight items in the personal accomplishment factor loaded in the expected direction. Six of the nine items in the emotional exhaustion factor loaded in the expected direction. Four of the five items in the depersonalization factor loaded in the expected direction. Several items, however, loaded on the depersonalization factor that were not on the original scale; five items loaded on depersonalization when not expected and two of these items also loaded on the emotional exhaustion scale.

Thus, the factors identified in the original test development for the strength dimension factored quite strongly when used with school principals. However,

Table 3.2

Varimax Factor Matrix of the Maslach Burnout Inventory for Personal Accomplishment, Emotional Exhaustion and Depersonalization Strength

		Factors and Factor Loadings		
		1	2	3
	Work Related Situations	Personal Accomplishment	Emotional Exhaustion	Depersonalization
1.	I feel emotionally drained from my work.	.127	(.687)*	.112
2.	I feel used up at the end of the workday.	.030	(.752)*	.076
3.	I feel fatigued when I get up in the morning and have to face another day on the job.	-.096	(.610)*	.242
4.	I can easily understand how my recipients feel about things.	(.412)*	.287	.072
5.	I feel I treat some recipients as if they were impersonal objects.	.010	.125	(.595)*
6.	Working with people all day is really a strain for me.	.024	(.484)*	(.443)
7.	I deal very effectively with the problems of my recipients.	(.598)*	.049	.067
8.	I feel burned out from my work.	-.038	(.602)*	(.401)

Work Related Situations	Factors and Factor Loadings 1 Personal Accomplishment	 2 Emotional Exhaustion	 3 Depersonalization
9. I feel I'm positively influencing other people's lives through my work.	(.706)*	-.077	-.019
10. I've become more callous toward people since I took this job.	.024	.180	(.637)*
11. I worry that this job is hardening me emotionally.	.016	.196	(.651)*
12. I feel very energetic.	(.761)*	-.104	.125
13. I feel frustrated by my job.	.083	(.615)*	.358
14. I feel I'm working too hard on my job.	.137	.369*	(.482)
15. I don't really care what happens to some recipients.	.068	-.059	(.573)*
16. Working with people directly puts too much stress on me.	.051	.329*	(.549)
17. I can easily create a relaxed atmosphere with my recipients.	(.807)*	.000	-.013
18. I feel exhilarated after working closely with my recipients.	(.709)*	.093	.056
19. I have accomplished many worthwhile things in this job.	(.708)*	.057	.079
20. I feel like I'm at the end of my rope.	-.031	.378*	(.605)

Work Related Situations	Factors and Factor Loadings		
	1	2	3
	Personal Accomplishment	Emotional Exhaustion	Depersonalization
21. In my work, I deal with emotional problems very calmly.	(.729)*	.063	-.043
22. I feel recipients blame me for some of their problems.	.136	.316	.393*
Eigenvalues	5.306	1.150	3.657
Percent of Total Variance	26.6	7.7	18.8
Cumulative Percent of Total Variance	26.6	34.3	53.1

* Items identified on original instrument.

because of multiple loading interpretations of the depersonalization factor should be treated with caution.

In general, the frequency dimension of the *Maslach Burnout Inventory* factored more strongly than the strength dimension. Again, in looking at both the frequency and strength dimension of the test the personal accomplishment factor seemed to be the most clearly established factor, followed closely by the emotional exhaustion factor. The depersonalization factor, however, was not as strong as expected in either the frequency or strength dimension. The factor analysis, however, did indicate that the *Maslach Burnout Inventory* was reasonably well developed and that it appeared to measure what the developers claim it measured. The depersonalization factor should, based on the results with this sample, be carefully interpreted.

Role conflict and role ambiguity survey. The results of the factor analysis of the Role Conflict and Role Ambiguity Scale are shown in Table 3.3.

All fourteen items factored on the expected factors and loaded above .40. Six items loaded strongly on the role ambiguity factor and eight items loaded strongly on the role conflict factor.

Thus the Role Conflict and Role Ambiguity Survey appeared to identify two definite factors when used in this study of principals. These factors were identical to

Table 3.3

Varimax Factor Matrix of the
Rizzo, House, and Lirtzman
Role Conflict - Role
Ambiguity Scale

		Factors and Factor Loading	
		1	2
	Work Related Situations	Role Ambiguity	Role Conflict
1.	I have clear, planned goals for my job.	(.557)*	-.030
2.	I know that I have divided my time properly.	(.559)*	-.061
3.	I know what my responsibilities are.	(.724)*	.036
4.	I know exactly what is expected of me.	(.734)*	-.119
5.	I feel certain about how much authority I have on the job.	(.708)*	-.147
6.	Explanation is clear of what has to be done.	(.796)*	-.161
7.	I have to do things that should be done differently.	-.015	(.487)*
8.	I receive an assignment without the manpower to complete it.	-.140	(.528)*
9.	I have to buck a rule or policy in order to carry out my assignment.	-.104	(.585)*
10.	I work with two or more groups who operate quite differently.	.031	(.552)*
11.	I receive incompatible requests from two or more people.	-.053	(.693)*
12.	I do things that are apt to be accepted by one person and not by others.	-.123	(.678)*

Work Related Situations	Factors and Factor Loading 1 Role Ambiguity	 2 Role Conflict
13. I receive an assignment without adequate resources and materials to execute it.	-.066	(.699)*
14. I work on unnecessary things.	-.330	(.396)*
Eigenvalue	3.671	2.129
Percent of Total Variance	30.1	19.2
Cumulative Percent of Total Variance	30.1	49.3

*Items identified on original instrument.

those proposed by the creators of this instrument.

Appropriateness of Instrument

From the reliability scores and factor analysis of the Maslach Burnout Inventory and the Rizzo, House and Lirtzman Role Conflict and Role Ambiguity Survey in this study, there was evidence to support the use of these instruments. Both scales had high reliability and had been shown to identify the factors predicted by the developers. Thus these scales appeared to be appropriate in the study of school principals in Nova Scotia.

Summary

This chapter contains an outline of the research design and methodology employed in the study as well as an examination of the appropriateness of the burnout and role conflict - role ambiguity instruments.

The study was an exploratory and descriptive study of burnout among school principals using descriptive and exploratory analysis. The interrelationship of variables examined was based on the Kyriacou and Sutcliffe (1978) model of teacher stress. A stratified random sample of 272 principals in Nova Scotia, Canada was surveyed by means of a 56-item questionnaire. An 84 percent response rate was obtained from respondents.

The Maslach Burnout Inventory and the Rizzo, House and

Lirtzman Role Conflict and Role Ambiguity Questionnaire were used in data collection. A factor analysis and examination of reliability and validity for the instruments indicated that they were appropriate for use in this study.

CHAPTER 4

Profile of Respondents

A profile of the principals who responded to the study questionnaire is presented in this chapter to provide an overall picture of the sample of Nova Scotia principals. Included in this profile is information on personal and situational characteristics of the principals as well as overall scores on the role conflict and role ambiguity scales, and a summary of responses to questions on overall job stress, personal life stress, leisure time and worry about school. Principals' responses to a request to identify job stressors and leisure time activities are also outlined.

Personal Characteristics

Personal characteristics of principals are described in this section in relation to age, experience, length of time in the same school, type of training, desire for promotion and propensity to leave the school or job.

Age

As show in Table 4.1 the majority of principals were in the 30-59 age categories, with very few under 30 years

Table 4.1

Age of Principals

Age Category	Frequency	Percentage
Under 30	3	1.3
30-39	69	30.8
40-49	94	42.0
50-59	48	21.4
60 or older	9	4.0
No response	1	0.4
Total	224	100%

of age or over 60 years of age.

It seems reasonable that few individuals become principals before age 30 as classroom teaching experience is usually the stepping stone to a principalship. There is room for conjecture, however, as to why there are so few principals, only 4 percent, over 60 years of age. It may indicate that principals do not complete their professional careers as principals but either as teachers or in some other professional capacity or they choose to retire before reaching the retirement age of 65. Of the respondents questioned, 42 percent fell into the category referred to by Pines and Aronson (1981:173) as the mid-career crisis stage, between 40 and 49 years of age. It is at this stage in one's career that career development tends to result in greater stress for the individual. The majority of respondents were mid-career educators. Some 73 percent of the principals were between the ages of 30 and 49, the period identified by Lauderdale (1982:43) as the time of greatest potential for burnout.

Experience

As shown in Table 4.2 the majority of principals (54 percent) had ten or less years of experience as a principal and the largest single group had less than six years' experience.

This does not reflect the fact that the school system

Table 4.2

Years of Experience as a Principal

Years as Principal	Frequency	Percent
1-5 years	65	29.0
6-10	55	24.6
11-15	42	18.8
16-20	37	16.5
21 or more	24	10.7
no response	1	.4
Totals	224	100

in Nova Scotia has been shrinking rapidly in the past five years. One would expect a large number of principals in the ten to twenty years of experience category since that was the time when schools were expanding.

The data indicate that many new members have joined the ranks of school administration in recent years.

To retire on full pension in Nova Scotia usually requires thirty years of teaching service, yet there were very few principals who had spent more than fifteen years as a school principal. This may mean that principals become administrators later in their professional careers and perhaps leave administration before the end of their careers. In any case, the majority of the principals, in this sample, had spent ten or fewer years as school principals.

Years in Current School

As shown in Table 4.3 over one-third, 35 percent, of the sample had been principals in their current school for nine or more years. On the other hand, the same number of principals, 35 percent, had been in the same school for less than five years.

This seems to indicate that principals in Nova Scotia have a range of experience as school administrators, they do move around from school to school and that new opportunities and challenges seem to be available to

Table 4.3

Years as Principal of Current School

Years in School	Frequency	Percent
1-2 years	37	16.5
3-4	42	18.8
5-6	46	20.5
7-8	19	8.5
9 or more	79	35.3
no response	1	.4
Totals	224	100

principals. The majority, 55 percent, had been in their current schools for six years or less.

Training in Educational Administration

As shown in Table 4.4 half of the principals surveyed, 51 percent, had a Master's degree or higher in educational administration and all but 8 percent of the respondents claimed to have had some administrative training beyond a basic teaching certificate.

It may be suggested from this information that the principals in the sample had superior qualifications, with half holding graduate degrees in educational administration. A further 28 percent indicated that they had a diploma in educational administration. This probably refers to the diploma obtained from a four-summer program offered by the Nova Scotia Department of Education for the past fifteen years and required before administrative allowances are paid to principals or vice-principals. A graduate degree in educational administration has been accepted in lieu of this diploma. This policy of the Nova Scotia Department of Education may account for the high degree of academic qualifications among school principals.

Desire for Promotion

As shown in Table 4.5 there is close to a normal statistical distribution of scores among principals in their

Table 4.4

Graduate Training in Educational Administration

Amount of Training	Frequency	Percent
None	17	7.6
Some	28	12.5
Diploma	63	28.1
Masters	113	50.4
Ph.D.	2	.9
No response	1	.4
Totals	224	100

Table 4.5

Desire for Promotion Among Principals

Desire for Promotion	Frequency	Percent
Very low	16	7.1
Low	34	15.2
Moderate	111	49.6
High	47	21.0
Very high	13	5.8
No response	3	1.3
Totals	224	100

desire for promotion. One-half of the respondents, 50 percent, rated their desire for promotion as moderate, with 22 percent indicating a less than moderate desire for promotion and 27 percent indicating a greater than moderate desire for promotion. These results suggest that principals, generally, are not anxious to advance to other administrative positions in education beyond their current principalship, since 72 percent rate their desire for promotion to be moderate or less.

It is possible that the geography of the province of Nova Scotia complicates promotion beyond principal. Because of the structure of the school organizations and its largely rural nature, a promotion, or even a change of schools, could require a move of the principal's family to another community. This in itself may be enough to discourage promotion beyond the current school. In a largely urban sample the results might be quite different.

Propensity to Leave

As shown in Table 4.6, principals in the sample appear to be generally satisfied with their positions in the educational system. Over half, 51 percent, of the principals expressed a preference to remain in the same job in the same school, whereas 35 percent preferred to change to another school or another job in education.

It appears that the majority of principals in this sample

Table 4.6

Propensity to Leave School, Principalship, or Educational System

Job Aspiration	Frequency	Percent
Stay in same school	115	51.3
Change schools	32	14.3
Change to another job in education	47	21.0
Change field completely	22	9.8
No response	8	3.6
Totals	224	100

are committed to the field of education. The fact that 10 percent of the respondents wanted to get out of education completely is, however, somewhat disconcerting. If one school in ten has a principal who feels this way, there may be good reason to question the leadership that is being offered to staff and students in some schools in this sample.

Generally it appears that the principals surveyed are not unhappy in their current roles. Although 45 percent indicated that they would like a change, the majority of them indicated that they wished to remain in education.

Situational Characteristics

Situational characteristics of principals are described in this section in relation to type of school, size of school, time spent in classroom teaching, type of community, extent of teacher supervision, autonomy, opportunities for promotion and frequency of contacts outside the school system.

Type of School

In Nova Scotia, as in any educational jurisdiction, there are a variety of ways in which schools may be organized. Seven categories of school organization were identified in Nova Scotia prior to undertaking this study; these are listed in Table 4.7.

Principals surveyed in this study represented the seven classifications of school type. Not all schools fit these

Table 4.7

School Organization in Nova Scotia and in Research Sample

Grades Taught	Sample	Nova Scotia	Sample Percent of Population
P-6	60	339	18
7-9	42	47	89
10-12	23	23	100
P-9	35	83	42
7-12	35	44	80
P-12	21	26	81
Vocational	7	13	54
Other	0	2	0
Unclassified Response	1	--	--
Totals	224	577	--

simple categorizations, but principals were asked to identify the category that came closest to describing their school.

As indicated in Table 4.7 all of the identified categories of schools were well-represented in the study.

Size of School

Schools in Nova Scotia were identified by size of enrollment and then grouped into ten size categories based on enrollment in multiples of one hundred. When the questionnaire was mailed to principals an attempt was made to obtain responses from principals in each category of school size. As shown in Table 4.8 all school sizes were well-represented in the sample.

Type of Community

As shown in Table 4.9 the principals surveyed represented four types of Nova Scotia communities; rural, village, town and city. The largest group of respondents, 34 percent, worked in schools located in a rural community with the next largest groups representing town, city and village with 29 percent, 20 percent and 15 percent respectively. This appears to represent the approximate breakdown of all schools in the province and reflects its rural nature.

Time Spent Teaching

As shown in Table 4.10, the majority of principals in the survey, 57 percent, reported that they did no teaching,

Table 4.8

Student Enrollment in Nova Scotia Schools and in Research Sample

Enrollment	Number of Schools in Sample	Number of Schools in Nova Scotia	Sample Percent of Population
1-100	12	89	13
101-200	19	138	14
201-300	36	106	34
301-400	42	80	53
401-500	37	66	56
501-600	27	38	71
601-700	16	20	80
701-800	11	13	85
801-900	3	6	50
901+	21	21	100
Totals	224	577	--

Table 4.9

Location of Surveyed Schools

Type of Community	Frequency	Percent
Rural	75	33.5
Village	33	14.7
Town	64	28.6
City	45	20.1
No response	7	3.1
Totals	224	100

Table 4.10

Time Spent Teaching by Principals

Percentage Teaching Time	Frequency	Percentage
No teaching	127	56.7
1-25%	59	26.3
26-50	17	7.6
51-75	3	1.3
76-100	18	8.0
No response	0	0.0
Totals	224	100

while 26 percent reported that they spent less than one-quarter of their working day teaching. Only 9 percent of the respondents taught for more than half of the school day.

This information indicates that over 80 percent of the surveyed principals devoted the major part of their school day to administrative duties. There were few principals who taught more than 25 percent of the school day. Thus the majority of principals were full time administrators with few teaching responsibilities.

Supervision of Teachers

As shown in Table 4.11 the majority of principals engaged in teacher supervision and evaluation as a responsibility of their job, with 59 percent reporting that they supervised teachers frequently or very frequently. Another large group, 33 percent of respondents, indicated that they supervised occasionally, while 8 percent reported that they rarely or seldom supervised teachers.

In general it appears that the principals surveyed considered teacher supervision to be an important responsibility, with less than 10 percent indicating that they did little supervision.

Opportunities for Promotion

As shown in Table 4.12, 40 percent of the principals

Table 4.11

Supervision and Evaluation of Teachers by Principals

Supervision Carried Out	Frequency	Percent
Rarely	11	4.9
Seldom	6	2.7
Occasionally	73	32.6
Frequently	91	40.6
Very frequently	41	18.3
No response	2	.9
Totals	224	100

Table 4.12

Opportunities for Promotion for Principals

Opportunities for Promotion	Frequency	Percent
Poor	41	18.3
Fair	49	21.9
Moderate	59	26.3
Good	62	27.7
Excellent	10	4.5
No response	3	1.3
Totals	224	100

surveyed indicated that their opportunities for promotion were poor or fair while 32 percent indicated that their opportunities for promotion were good to excellent.

These results seemed to indicate a reasonably balanced outlook by principals on their prospects for advancement within their school systems. Approximately one-third saw their opportunities for promotion as poor to fair, one-third moderate and one-third good to excellent.

Autonomy

As shown in Table 4.13 the majority of principals felt that they were permitted to operate their schools as they saw fit. Only 3 percent of the principals reported that they rarely or seldom had the freedom to run their schools as they wished and only 17 percent reported occasional autonomy. The majority of principals, 79 percent, reported that they frequently or usually acted autonomously.

Generally these responses seem to indicate that principals in this sample did not feel constrained by the school board or others in the operation of their schools. They indicated that they exercised a good deal of personal control over the manner in which their schools functioned.

Boundary Spanning

As shown in Table 4.14, dealing with agencies outside the school system was a regular part of the principal's

Table 4.13

Reported Autonomy of School Principals

Free to Operate School	Frequency	Percent
Rarely	3	1.3
Seldom	4	1.8
Occasionally	39	17.4
Frequently	59	26.3
Usually	117	52.2
No response	2	.9
Totals	224	100

Table 4.14

Frequency of Contacts with Agencies Outside the School System

Boundary Spanning Requirement	Frequency	Percent
Rarely	3	1.3
Seldom	3	1.3
Occasionally	85	37.9
Frequently	99	44.2
Very frequently	33	14.7
No response	1	.4
Totals	224	100

job as reported by this sample of principals.

Only 3 percent of the principals indicated that they rarely or seldom dealt with groups outside the school system, while 38 percent reported occasional contacts and 59 percent indicated that they frequently or very frequently dealt with groups or agencies outside the school system.

These findings suggest that principals direct a good deal of their attention to groups outside the educational system and act as a boundary spanner between the educational system and other organizations. In many ways principals may be seen as buffers between the school and other community groups or agencies.

Stress Variables

In this section the responses of principals to questions related to stress on the job and at home are summarized. The major stress variables described are role conflict, role ambiguity, overall job stress, and personal life stress. Principals' overall responses on each of these variables is presented to provide an overview of the stress experienced by principals in this sample.

Role Conflict and Role Ambiguity

The overall mean scores on the Role Conflict and Role Ambiguity Survey for the research sample are shown on Table 4.15.

Table 4.15

Mean Scores for Principals and Norms on Role Conflict and Role Ambiguity

Subscale	Sample Mean	Rizzo, House and Lirtzman (1970) Means
Role Conflict	3.4	4.0
Role Ambiguity	5.3	3.9

For a range of possible scores from one to seven on the role conflict measure the principals as a group scored very close to the midpoint of the scale. The mean score for the group was 3.4, and lower than the mean of 4.0 found by Rizzo, House and Lirtzman (1970) in the instrument development. This suggests that the principals in this sample did not experience high degrees of role conflict. Although role conflict appears to be a factor in their jobs, the principals did not consider it a major cause of concern.

Role ambiguity scores were higher than the midpoint of 3.5 and higher than the mean of 3.9 found by Rizzo, House and Lirtzman (1970) in the instrument development. Principals in this sample had a mean score of 5.3 on the role ambiguity scale. This portion of the instrument is scored in reverse with the high score indicating less role ambiguity. As a consequence a mean score of 5.3 suggests that the principals surveyed were actually finding little role ambiguity in their jobs.

It appears from this information that the principals, in general, found conflicting demands in their roles as principals but were able to cope with these demands. Similarly principals did not seem to be concerned about their job expectations as there was little role ambiguity in evidence among this sample of school principals.

Overall Job Stress

As shown in Table 4.16 when principals were asked to rate their overall job stress, they reported that their jobs were very stressful or extremely stressful in only 13 percent of the cases. On the other hand, only 9 percent of the respondents reported that their jobs were not stressful. Jobs were reported as mildly stressful by 36 percent and moderately stressful by 41 percent.

This information suggests that although the job of principal is not without its stressful aspects the majority of respondents did not find the stress to be an overriding concern. The majority of the principals, 76 percent, reported that their jobs were mildly or moderately stressful. This appears to indicate that the majority of principals cope well with the demands of their positions.

Personal Life Stress

As shown in Table 4.17 very few principals, 9 percent, reported that their personal life was very stressful or extremely stressful. Approximately one-third of the respondents, 34 percent, reported that their personal life was moderately stressful, while the largest group, 46 percent, reported that their personal life was mildly stressful. A small group, 10 percent, reported that their personal life

Table 4.16

Overall Job Stress Reported by Principals

Degree of Job Stress	Frequency	Percent
Not stressful	20	8.9
Mildly stressful	80	35.7
Moderately stressful	91	40.6
Very stressful	28	12.5
Extremely stressful	2	.9
No response	3	1.3
Totals	224	100

Table 4.17

Personal Life Stress Reported
by Principals

Degree of Personal Life Stress	Frequency	Percent
Not stressful	23	10.3
Mildly stressful	102	45.5
Moderately stressful	76	33.9
Very stressful	12	5.4
Extremely stressful	7	3.1
No response	4	1.8
Totals	224	100

was not stressful.

It appears from this information that there is some stress in personal life, yet only a small percentage rated their personal lives as a source of considerable stress. This suggests that principals in this sample were well-adjusted in their personal lives and were not preoccupied with concerns related to their out-of-school life.

Stressful Aspects of the Job

Principals surveyed in this study were asked, on a volunteered response question, to indicate what aspects of the job of principal they found to be most stressful. All responses were listed and then organized into categories of responses. From this exercise eleven categories of job stressors were obtained. Some respondents listed more than one stressful aspect of the job which accounts for the 319 responses from 224 respondents.

The aspects of the job which principals considered to be most stressful are outlined below. The categories of job stressors were as follows:

1. Dealing with demands such as time demands, bureaucracy, interruptions, deadlines, year end activities, calls at home, timetabling, cancelling school, too much responsibility, paperwork, dances, keeping abreast of changes and saying no;

2. Dealing with the demands of parents and public

groups of various kinds ;

3. Dealing with students, discipline, conflicts and problems;

4. Evaluating, supervising, and releasing teachers;

5. Handling cutbacks, staff shortages, declining enrolment, and budgets;

6. Dealing with central administration and school board interventions;

7. Getting teachers to do their jobs;

8. Dealing with teachers, staff relations, teacher conflicts and teacher personal problems;

9. Mediating disputes in general and handling various complaints;

10. Monitoring student achievement, student involvement and curriculum development; and

11. Handling the double requirement of being a classroom teacher as well as an administrator.

There were twelve responses that were not categorized that dealt with a variety of circumstances including the reduced role of the principal, the lack of authority, student and teacher apathy, part-time secretarial help, multi-graded teaching and human rights demands.

The responses of principals on the question of job stressors is summarized in Table 4.18. Job demands were the most frequently cited source of stress. The second,

Table 4.18

Stressful Aspects of the Job
Identified by Principals

	Job Situation	Frequency	Percent
1.	Job demands	50	15.7
2.	Dealing with parents	46	14.4
3.	Dealing with students	46	14.4
4.	Staff relations	36	11.3
5.	Central administration and school board	30	9.4
6.	Cutbacks and declining enrolments	24	7.5
7.	Getting teachers to do their jobs	18	5.6
8.	Mediating disputes	17	5.3
9.	Teacher evaluation and release	15	4.7
10.	Student achievement	14	4.4
11.	Teaching and administration	11	3.4
12.	Miscellaneous	12	3.8
	Totals	319	100

third and fourth most frequent stressors were concerned with interpersonal relations with parents, students and staff that together constitute 40 percent of all responses.

Getting teachers to do their jobs, mediating disputes and teacher evaluation and release were also identified as job stressors that require the principal to deal with other individuals in an intensely personal manner and represent 16 percent of all responses.

It seems from this information that principals identified stressors that could be divided into task-related stressors and person-related stressors. Of the identified stressors, 56 percent involved interpersonal relations with others in the work environment. The remaining stressors were related to tasks that were a part of the duties of a principal.

In general, eleven specific categories of stressors and two broad groups of stressors are outlined; however, there does not seem to be any one stressor that is agreed upon by the majority of principals. There appear to be many job stressors at work with no one being particularly outstanding.

Leisure Time Variables

In attempting to determine if there were connections between job stress and the home life of principals, leisure time variables were examined. Principals were asked to indicate how they spent their leisure time away from school, whether they worried about school concerns at home and what activities they engaged in at home which they considered to be most relaxing.

Use of Leisure Time

As shown in Table 4.19 the majority of principals, 70 percent, reported that they frequently or usually devoted their evenings to activities unrelated to school work, while 25 percent reported that they occasionally worked at things unrelated to school. Less than 5 percent reported that they rarely or seldom devoted their evenings to personal affairs.

This information suggests that the principals in the sample were not unduly preoccupied with their jobs when they were away from the school setting. A total of 70 percent were usually or frequently involved in evening activities unrelated to school. Thus it seems that principals in this sample were able to make a distinction between school and personal life.

Worry About School

As shown in Table 4.20 there was a relatively normal distribution of principals' responses to a question concerning worry about school. Few principals appeared to be preoccupied with school, with only 4 percent reporting that they usually worry about school. On the other hand, only 9 percent reported that they rarely worried about school.

Table 4.19

Frequency of use of Evenings for Personal Activities Unrelated to School

Evenings and Personal Affairs	Frequency	Percent
Rarely	1	.4
Seldom	8	3.6
Occasionally	56	25.0
Frequently	111	49.6
Usually	45	20.1
No response	3	1.3
Totals	224	100

Table 4.20

Frequency of Worry about School Concerns When Away from the Job

Worry	Frequently	Percent
Rarely	21	9.4
Seldom	41	18.3
Occasionally	89	39.7
Frequently	62	27.7
Usually	9	4.0
No response	2	.9
Totals	224	100

The largest response group, 40 percent, indicated that they occasionally worried about school, while 18 percent reported that they seldom worried and 28 percent reported that they frequently worried about school.

This information seems to suggest that principals are not preoccupied with worries about school when they are at home. At the same time, neither do they seem to be able to divorce themselves completely from the concerns of school. A total of 67 percent of the respondents reported that they occasionally or frequently worried about school. Yet there does not appear to be anything unusual about this distribution. Some concerns of the job are brought home, but they do not appear to be a preoccupation.

Leisure Time Activities

Principals surveyed in the study were asked, on a volunteered-response question, to indicate what leisure time activities they engaged in that they considered to be most relaxing. There were 567 responses to this question, as some principals listed more than one activity. All responses were listed and then grouped into categories of responses. Ten categories of responses were obtained.

The leisure time activites which principals engaged in which they found most relaxing are outlined below. The categories of responses were as follows:

1. Sports in general, sailing and golf;

2. Fishing, hunting, camping, walking and running;
3. Community service, music, choir and church;
4. Socializing, card playing, dancing, dining, theatre, plays, movies and television;
5. Gardening, farming, woodcutting, home repairs, the outdooors and nature;
6. Reading;
7. Woodworking, carpentry, furniture refinishing, handcrafts, knitting, crocheting, and miscellaneous hobbies;
8. Family activities;
9. Travel; and
10. Miscellaneous activities.

A summary of the leisure time activities engaged in by respondents is shown in Table 4.21. Sporting activities were the most popular choice of relaxing activity. However, a variety of different activities were identified. Physical activities such as sports, hunting, running or gardening were the preference of 43 percent. The remainder indicated a preference for activities that ranged from sedentary and solitary activites (reading, handcrafts) to group socializing and family.

There did not appear to be any one dominant preference among principals for relaxing activities. A variety of choices were evident and there appeared to be little pattern in the options indicated.

Table 4.21

Leisure Time Activities
Identified by Principals

	Activity	Frequency	Percent
1.	Sports/sailing/golf	109	19.2
2.	Fishing/hunting/camping/ walking/running	69	12.2
3.	Community service/music/ choir/church	65	11.5
4.	Socializing/theatre/ dancing/cards	64	11.3
5.	Gardening/farming/outdoors	65	11.5
6.	Reading	62	10.9
7.	Woodworking/handcrafts/hobbies	45	7.9
8.	Family	30	5.3
9.	Travel	27	4.8
10.	Miscellaneous	31	5.5
	Totals	567	100

Summary

In this chapter a summary of the responses by principals to the questions posed in the research instrument was presented. The material was outlined to provide a description of the sample and a profile of the principals in the study.

From this profile it appears that principals were not experiencing intense degrees of role conflict, role ambiguity, overall job stress, or personal life stress. On the average the respondents appeared to be well-adjusted and to be coping well with the demands of the job.

Similarly the activities and concerns of principals away from the job indicated that they were not preoccupied with school concerns when at home. They engaged in a variety of recreational activities that represented a broad range of interests.

The sample of principals reflects a range of scores on the personal, situational, and stress factors examined. The sample represents a variety of backgrounds, job situations and stress experiences and no single factor stands out that would indicate that principals are an exceptional or unusual group.

CHAPTER 5

Analysis of Data

Introduction

The results of the analysis of data related to the primary research question on burnout among school principals are presented in this chapter. The material is outlined in relation to the Kyriacou and Sutcliffe (1978) model of teacher stress as described in Chapter 2. Stress is defined as a six-stage process beginning with (a) potential occupational stressors, and including (b) the appraisal of a threat to self-esteem or well-being, (c) the recognition of an actual stressor, (d) the activation of a coping mechanism, (e) the experience of stress and (f) the stress response.

The data were examined in an attempt to determine the relationship between burnout and the personal, situational, organizational, overall job stress, personal life stress, leisure time and job stressor variables.

In order to place the concept of burnout in perspective, the definition advanced by Maslach and Jackson (1981A) is reviewed preliminary to the analysis.

Generally Maslach and Jackson (1981A:1) defined burnout as a syndrome of emotional exhaustion and cynicism that is developed in the work setting. There are three key aspects to this syndrome which are described in terms of the frequency and strength of these feelings. In all, six sub-concepts are used in the assessment of burnout.

Maslach and Jackson (1981A:1) describe the three aspects of burnout.

> The Emotional Exhaustion subscale assesses feelings of being emotionally overextended and exhausted by one's work. The Depersonalization subscale measures an unfeeling and impersonal response toward recipients of one's service, care, treatment, or instruction. The Personal Accomplishment subscale assesses feelings of competence and successful achievement of one's work with people. Each subscale has two dimensions: frequency (how often people have these feelings) and intensity (the strength of these feelings).

The Maslach Burnout Inventory was used to collect data on burnout in this study. Six burnout scores were obtained from the instrument. The mean burnout scores for the sample were computed and then compared with norms that had previously been established by the developers of the instrument.

An outline of the mean scores for the sample are presented in Table 5.1. Also included in the table is the classification of the degree of burnout, from low to high, as suggested by the test norms. Principals, in this sample, scored low, in terms of experienced burnout, on four of the six subtests of the instrument. Scores were

Table 5.1

Mean Burnout Scores for Sample of Principals Surveyed and Comparison with Categorization of Scores from the Maslach Burnout Inventory

Subscale	Mean	Categorization
Emotional Exhaustion		
Frequency	13.1	Low
Intensity	18.6	Low
Depersonalization		
Frequency	4.7	Low
Intensity	6.9	Low
Personal Accomplishment		
Frequency	37.5	Moderate
Intensity	40.0	Moderate

low in the emotional exhaustion frequency, emotional exhaustion strength, depersonalization frequency and depersonalization strength subscales of the test. On personal accomplishment frequency and personal accomplishment strength the mean scores indicated a moderate degree of burnout.

These findings suggest that, in general, principals in the sample were coping rather well with the demands of the job; they did not feel emotionally drained from their work nor did they tend to deal with other people in a detached or depersonalized manner. They did, however, feel some frustration and perhaps some disillusionment with their own ability to accomplish what they set as goals for themselves.

It appears that principals in this sample were not experiencing high or even moderate degrees of burnout, but were experiencing some dissatisfaction with what they were able to accomplish in their jobs. Burnout did not appear to be a major problem for this group of principals.

This chapter is addressed to an analysis of the relationships specified in the major research question:

> To what extent do principals experience burnout and what is the relationship of burnout to personal, situational, organizational, overall job stress, personal life stress, leisure time, and job stressor variables?

To address the problem presented by the research question, burnout was examined under the following headings:

(a) personal variables, (b) situational variables, (c) role conflict, role ambiguity, overall job stress, personal life stress, (d) identified job stressors, and (e) leisure time activities.

Burnout and Personal Variables

In this section attention is directed to the question posed by research sub-problem 1.1.

> What is the relationship between burnout and personal characteristics of principals?

The personal variables considered were age, experience, length of time in the same school, type of training, desire for promotion and propensity to leave the school or job.

Predictors of Burnout

A multiple regression analysis technique was employed to determine if any or all of the personal variables could account for a substantial amount of the variance in the six sub-concepts of burnout.

As shown in Table 5.2 the personal variables accounted for a small but significant percentage of the variance on the six sub-scales of burnout. In emotional exhaustion frequency and emotional exhaustion strength the personal variables accounted for 13 and 14 percent of the variance respectively; in depersonalization frequency and depersonalization strength 5 and 7 percent; and in personal accomplishment frequency and personal accomplishment strength, 14 and 19 percent.

Table 5.2

Multiple Regression Analysis for Prediction of Burnout from Personal Variables

Burnout Subscale	Multiple R	R^2
Emotional Exhaustion Frequency	.366	.134
Emotional Exhaustion Strength	.376	.141
Depersonalization Frequency	.233	.054
Depersonalization Strength	.260	.067
Personal Accomplishment Frequency	.371	.137
Personal Accomplishment Strength	.436	.190

There were six personal characteristics used in the calculation of the overall scores for personal variables. The amount of variance accounted for suggests that individual personal characteristics may be a strong predictor of burnout, especially in terms of emotional exhaustion and personal accomplishment. This is a finding that is not supported by the literature on burnout where greater emphasis has been placed on environmental influences and the importance of personal variables has been given little emphasis.

Greater variance in accounted for in both the frequency and strength dimensions of the emotional exhaustion and personal accomplishment scales, while relatively little variance is accounted for on either dimension of the depersonalization scale.

This may suggest that personal variables may in some way be related to emotional exhaustion and personal accomplishment, but have relatively less influence over depersonalization of relations with students and others in the school setting. It may also suggest that feelings of emotional exhaustion and personal accomplishment are influenced more by personal factors related to the principals' own self-assessment. Particularly in relation to the strength of feelings of personal accomplishment, the personal variables examined may have some predictive relationship, as it had the most significant relationship of the six burnout concepts examined.

Between Group Differences

A one-way analysis of variance and Scheffe procedure were employed to determine whether differences in burnout existed between groups based on personal characteristics. In some instances the response categories used in the questionnaire were collapsed for this analysis. If a response category had very few respondents it was combined with the one next to it so that each category represented enough responses to generate meaningful results. The results of these analyses for each of the personal variables are reported in the following pages.

Age. As shown on Table 5.3 six significant differences in burnout were obtained between groups based on age categories. In all instances the 39-and-under age category was significantly different from the other two age categories of 40 to 49 and 50-and-over. On four sub-scales - emotional exhaustion frequency, emotional exhaustion strength, depersonalization frequency and depersonalization strength - the 39-and-under age category had significantly higher burnout than the other two older age categories. For the remaining two scales, personal accomplishment frequency and personal accomplishment strength, the 39-and-under age

Table 5.3

One-way Analysis of Variance for Mean Scores on Burnout Sub-scales Classified According to Differences Within Categories of Age

Response Category (Number of Respondents)	A Age 39 Years And Under (72)	B Age 40-49 Years (89)	C Age 50 Years And Over (57)	Significantly Different Groups
Emotional Exhaustion				
Frequency	15.81	11.83	11.67	A-B, A-C
Strength	22.12	17.05	16.80	A-B, A-C
Depersonalization				
Frequency	5.69	4.13	4.20	A-B, A-C
Strength	8.55	6.17	6.18	A-B, A-C
Personal Accomplishment				
Frequency	40.02	36.41	35.83	A-B, A-C
Strength	42.44	39.28	37.90	A-B, A-C

category had significantly lower burnout than the other two age categories.

These results suggest that the principals under age 39 were significantly different from principals in older age categories; they had higher burnout on emotional exhaustion and depersonalization, and lower burnout on the personal accomplishment aspect of burnout.

The higher burnout for the under-39 age group is supported by the work of Cherniss (1980:37) on the pressures of establishing a reputation and demonstrating competence. However, the lower burnout on the personal accomplishment dimension was unexpected.

On four scales, emotional exhaustion frequency and strength and depersonalization frequency and strength, the overall scores on the burnout scales declined from the younger to older age categories. On personal accomplishment frequency and strength, however, the youngest group had lower burnout (a greater sense of personal accomplishment) than the older age categories. This suggests that principals who are over forty years of age may have passed the period in their careers where they are most susceptible to burnout in terms of emotional exhaustion and depersonalization yet the sense of personal accomplishment declines progressively as they get older and they are more susceptible to burnout, in terms of personal accomplishment, later in their careers.

The results indicate that none of the age categories had more than a moderate degree of burnout in comparison with the test norms. This suggests that principals of all ages in this sample were coping well with the demands of their jobs.

Experience. As shown in Table 5.4, significant differences on only one burnout scale, personal accomplishment frequency, were found between groups differentiated by years of experience as a principal. Respondents with from one to five years of experience as a principal had significantly less burnout on the personal accomplishment frequency dimension than those with from eleven to fifteen years of experience.

There appears to be a pattern in personal accomplishment frequency; less burnout is found with the less experienced principals, with an increase in burnout until the eleven-to-fifteen years of experience category, and then a decline until the twenty-one-or-more years of experience category. Personal accomplishment burnout seems to be a greater concern after eleven years of experience, with those at the beginning or near the end of their career as principal feeling more positive and experiencing less burnout in terms of the personal accomplishment frequency measure.

The differences between groups, although statistically

Table 5.4

One-way Analysis of Variance for Mean Scores on Burnout Sub-scales Classified According to Differences Within Categories of Years as Principal

Response Category (Number of Respondents)	A 1-5 Years (65)	B 6-10 Years (52)	C 11-15 Years (42)	D 16-20 Years (37)	E 21+ Years (22)	Significantly Different Groups
Emotional Exhaustion						
Frequency	15.07	13.68	11.76	11.56	12.45	None
Strength	20.37	19.13	18.34	15.68	17.17	None
Depersonalization						
Frequency	5.24	4.56	5.38	3.54	3.73	None
Strength	7.56	7.84	7.55	5.01	5.11	None
Personal Accomplishment						
Frequency	38.92	38.29	34.73	35.99	38.61	A-C
Strength	41.67	40.21	38.38	38.16	40.49	None

significant, are not large as all scores, according to the test norms, indicate a moderate degree of burnout for all categories of experience.

The most interesting development from this analysis is that experience as a principal had no significant effect on five of the six burnout measures.

Years in same school. The number of years as principal in the same school also accounted for significantly different scores on only the personal accomplishment frequency subscale. As shown in Table 5.5, those principals with nine or more years' experience in the same school had significantly higher burnout on the personal accomplishment measure of burnout than those with one to two and five to six years in the same school.

The findings suggest that there is a tendency for principals who are in the same school for nine or more years to frequently feel a decline in their experiences of personal accomplishment.

The results suggest a pattern in which their is less personal accomplishment burnout in the first six years in a school with an increase after that point. Although there are statistical differences between groups, the test norms indicate that scores for all categories are in the moderate range.

Table 5.5

One-way Analysis of Variance for Mean Scores on Burnout Sub-scales Classified According to Differences Within Categories of Years as Principal in the Same School

Response Category (Number of Respondents)	A 1-2 Years (37)	B 3-4 Years (41)	C 5-6 Years (44)	D 7-8 Years (19)	E 9+ Years (78)	Significantly Different Groups
Emotional Exhaustion						
Frequency	13.85	14.67	13.25	12.94	11.73	None
Strength	17.60	20.46	19.96	19.55	17.07	None
Depersonalization						
Frequency	5.13	4.85	5.13	4.93	3.98	None
Strength	6.37	7.50	7.94	8.89	5.85	None
Personal Accomplishment						
Frequency	39.40	38.48	39.86	35.03	35.25	A-E, C-E
Strength	41.86	40.90	42.00	39.36	38.09	None

Training in educational administration. The amount of graduate training among principals accounted for differences in scores on the personal accomplishment frequency and strength sub-scales of burnout.

As shown in Table 5.6, those principals who had some graduate training in educational administration were significantly different from those who had no graduate training or a Master's degree. Those with some training had significantly greater burnout on the personal accomplishment measures than did those with no graduate training or Master's degrees.

These results suggest that those who have begun but not completed graduate training are more susceptible to burnout in terms of personal accomplishment frequency than those either with no training or with graduate degrees. This may mean that the well-trained or the untrained are in the least danger of suffering from a frequent feeling of lack of personal accomplishment. It may mean that those who are motivated to obtain a graduate degree, and do so, are relatively pleased with their ability to get things done. Those who make no attempt to obtain graduate training seem to be quite content as well. Yet those principals who have started some training but have not completed it experience the highest frustration in terms of personal accomplishment. The failure to complete the graduate training may reflect a personal trait that is carried over to the school situation

Table 5.6

One-Way Analysis of Variance for Mean Scores on Burnout Sub-scales Classified According to Differences Within Categories of Graduate Training in Educational Administration

Response Category (Number of Respondents)	A None (15)	B Some (27)	C Diploma (62)	D Master's-Ph.D. (112)	Significantly Different Groups
Emotional Exhaustion					
Frequency	11.06	13.56	14.50	12.39	None
Strength	17.80	18.40	20.54	17.61	None
Depersonalization					
Frequency	3.48	4.07	5.43	4.55	None
Strength	7.61	6.07	8.14	6.42	None
Personal Accomplishment					
Frequency	39.30	33.15	37.10	38.37	A-B, B-D
Strength	40.43	35.29	38.87	41.57	B-D

where tasks are not followed through to completion.

On the strength dimension of personal accomplishment, those with some graduate training had significantly greater burnout than those with Master's degrees in educational administration. This may suggest that graduate training leads to personal expectations with greater returns or it may suggest that certain personality types seek Master's degrees and achieve a stronger sense of personal accomplishment from their jobs.

Principals with diplomas in educational administration seem to occupy a middle ground between those with no training and those with graduate training. This may suggest that either no graduate training or completed graduate training is related to lower burnout on the personal accomplishment strength measure. Personality characteristics may explain the desire among some individuals to obtain graduate degrees, and these same personality characteristics may account for the difference in burnout scores as well.

In comparing results with test norms, all scores for personal accomplishment frequency were in the moderate range. On personal accomplishment strength, however, those principals with incomplete graduate training scored high in terms of burnout, while all other categories had moderate burnout scores.

Desire for promotion. Desire for promotion has been shown to account for significant differences in burnout on the personal accomplishment frequency and strength subscales of burnout. As shown in Table 5.7, principals who rated their desire for promotion as high had significantly lower burnout on the personal accomplishment frequency scale than principals who rated their desire for promotion as either very low or moderate.

On the personal accomplishment strength measure, those principals who rated their desire for promotion as high or very high had significantly lower burnout than those who rated their desire for promotion as very low, low or moderate.

Principals who rated their desire for promotion as high or very high had lower burnout on both the frequency and intensity dimensions of personal accomplishment. This seems to indicate that those who seek promotion highly or very highly also receive stronger rewards in terms of the strength and frequency of feelings of personal accomplishment and are less susceptible to burnout in terms of personal accomplishment. At the same time, those who rated their desire for promotion as very low or low had high burnout on this dimension.

In terms of test norms, those principals who rated their desire for promotion as very low had high burnout scores on both personal accomplishment frequency and

Table 5.7

One-Way Analysis of Variance for Mean Scores on Burnout Sub-scales Classified According to Differences Within Categories of Desire for Promotion

Response Category (Number of Respondents)	A Very Low (15)	B Low (36)	C Moderate (106)	D High (46)	E Very High (13)	Significantly Different Groups
Emotional Exhaustion						
Frequency	12.80	16.22	12.55	12.84	11.77	None
Strength	16.44	23.38	17.41	18.80	18.72	None
Depersonalization						
Frequency	4.13	5.17	4.67	4.25	5.71	None
Strength	5.06	8.11	6.65	7.21	7.09	None
Personal Accomplishment						
Frequency	33.26	37.19	36.20	41.45	40.46	A-C, A-D
Strength	34.73	38.66	38.31	44.77	46.41	A-D, A-E B-D, B-E C-D, C-E

strength. Similarly those who rated their desire for promotion as high or very high had low burnout scores according to test norms. All other scores indicated moderate degrees of burnout.

Propensity to leave. The indication of a desire to leave the school or job accounted for significantly different scores on the emotional exhaustion frequency and strength sub-tests of burnout.

As shown in Table 5.8, those principals who wanted to change fields completed had significantly greater burnout in the emotional exhaustion frequency sub-scale than those who wanted to stay in the same school or job. This seems to be a predictable outcome; however, it is difficult to determine what comes first. Principals may want to leave their jobs because they frequently feel emotionally exhausted, or they may feel emotionally exhausted from their work and thus want to change fields completely.

On the emotional exhaustion strength sub-scale those principals who indicated a preference to change jobs in education or change fields completely had significantly greater burnout than those who preferred to stay in the same school.

The information suggests that those principals who prefer to stay in their current schools are the least susceptible to burnout in terms of emotional exhaustion

Table 5.8

One-Way Analysis of Variance for Mean Scores on Burnout Sub-scales Classified According to Differences Within Categories of Propensity to Leave

Response Category (Number of Respondents)	A Stay in Same School (113)	B Change Schools (32)	C Change Jobs in Education (46)	D Change Jobs Completely (21)	Significantly Different Groups
Emotional Exhaustion					
Frequency	11.50	12.93	14.27	19.23	A-D, B-D
Strength	16.12	17.90	21.70	26.74	A-C, A-D
Depersonalization					
Frequency	4.25	5.75	4.97	5.04	None
Strength	6.35	7.78	7.30	8.42	None
Personal Accomplishment					
Frequency	37.09	37.76	38.61	36.58	None
Strength	39.50	41.16	40.65	38.82	None

while those who prefer to leave the field of education completely are the most likely to experience burnout on this dimension.

In terms of test norms, those principals who indicated a preference to change fields completely had moderate burnout scores on both the frequency and strength dimension of emotional exhaustion. Scores for all other categories indicated a low degree of burnout.

Burnout and Situational Variables

In this section attention is directed to the question posed by research sub-problem 1.2:

> What is the relationship between burnout and the situational characteristics of principals?

The situational variables considered were school type, school size, type of community, time spent teaching, extent of teacher supervision, opportunities for promotion, autonomy and boundary spanning.

Predictors of Burnout

A multiple regression analysis technique was employed to examine statistically the data collected from principals. The purpose of this analysis was to determine if any or all of the situational variables could account for a substantial portion of the variance on the six sub-scales of burnout.

As shown in Table 5.9 the situational variables

Table 5.9

Multiple Regression Analysis for Prediction of Burnout from Situational Variables

Burnout Sub-scale	Multiple R	R^2
Emotional Exhaustion Frequency	.238	.056
Emotional Exhaustion Strength	.335	.112
Depersonalization Frequency	.308	.095
Depersonalization Strength	.319	.101
Personal Accomplishment Frequency	.350	.122
Personal Accomplishment Strength	.367	.135

accounted for a significant percentage of the variance in burnout. The largest variance accounted for was in personal accomplishment strength with 14 percent, followed by personal accomplishment frequency with 12 percent, emotional exhaustion strength with 11 percent, depersonalization frequency with 10 percent and emotional exhaustion frequency with 6 percent.

Between Group Differences

A one-way analysis of variance and Scheffe procedures was undertaken on all responses of situational variables to determine if there were differences within situational variables on the six sub-scales of the burnout inventory.

In some instances the response categories used in the questionnaire have been collapsed for this analysis. If a response category had very few respondents it was combined with others so that each category represented enough responses to generate meaningful results.

The analysis resulted in a finding of no significant differences in burnout scores when examined within school type, school size, type of community and time spent teaching. The results of the analysis for the other situational variables are reported on the following pages.

Supervision of teachers. As shown in Table 5.10, principals who reported that they very frequently supervised

Table 5.10

One-way Analysis of Variance for Mean Scores on Burnout Sub-scales Classified According to Differences Within Categories of Supervision and Evaluation of Teachers

Response Category (Number of Respondents)	A Rarely-Seldom (16)	B Occasionally (72)	C Frequently (89)	D Very Fre-quently (40)	Significantly Different Groups
Emotional Exhaustion					
Frequency	13.31	13.19	12.58	13.58	None
Strength	18.16	18.12	18.71	19.18	None
Depersonalization					
Frequency	3.57	4.64	4.47	5.34	None
Strength	6.01	6.28	7.35	7.41	None
Personal Accomplishment					
Frequency	36.47	36.36	37.46	40.03	B-D
Strength	37.24	39.08	39.80	43.26	A-D, B-D

and evaluated teachers had significantly lower burnout in terms of personal accomplishment frequency than those who reported that they occasionally supervised teachers.

Similarly those principals who indicated that they very frequently supervised teachers had significantly lower burnout on the personal accomplishment strength measure than those who indicated that they rarely/seldom or occasionally supervised teachers.

In general this information suggests that those principals who very frequently supervise and evaluate teachers may have a more clear-cut concept of their job, and supervise teachers as an important aspect of the job. It appears that those who regularly supervise teachers have stronger and more frequent feelings of personal accomplishment than those principals who supervise teachers less regularly. This may also indicate that those individuals who find time to evaluate teachers may be better organized and thus accomplish more than others.

In comparison with test norms, the burnout scores for groups in the categories of teacher supervision indicate a low degree of burnout in personal accomplishment frequency for principals who very frequently supervise teachers. All other groups' scores indicate moderate degrees of burnout.

Autonomy. As shown in Table 5.11 the degree of difference in reported autonomy accounted for significantly

Table 5.11

One-way Analysis of Variance for Mean Scores on Burnout Sub-scales Classified According to Differences Within Categories of Reported Autonomy

Response Category (Number of Respondents)	A Rarely-Seldom (6)	B Occasionally (39)	C Frequently (57)	D Usually (115)	Significantly Different Groups
Emotional Exhaustion					
Frequency	7.00	14.74	14.51	12.17	None
Strength	14.75	22.32	21.47	16.23	B-D, C-D
Depersonalization					
Frequency	1.33	5.48	5.07	4.38	A-B
Strength	3.50	9.19	7.18	6.28	B-D
Personal Accomplishment					
Frequency	38.01	33.54	37.77	38.52	B-C, B-D
Strength	42.08	37.76	40.56	40.29	None

different scores on four of the six burnout sub-scales.

Principals who reported that they usually had the freedom to run their schools as they saw fit recorded significantly lower burnout on the emotional exhaustion strength measure than those who reported occasional or frequent autonomy. Similarly, principals who reported that they usually had autonomy recorded significantly lower burnout on the depersonalization strength measure than those who reported occasional autonomy.

On the personal accomplishment frequency sub-scale those principals who reported that they frequently or usually had autonomy reported significantly lower burnout than those who reported occasional autonomy.

For the depersonalization frequency measure, however, the results appear to be in conflict with the other burnout categories. The principals who reported occasional autonomy had significantly higher burnout than those who reported that they rarely or seldom had autonomy.

These findings suggest, that in terms of the strength of feelings of emotional exhaustion and depersonalization and the frequency of feelings of personal accomplishment, principals who usually have autonomy in their jobs will score more positively, and have less burnout.

The depersonalization frequency scores indicate a different pattern. There are significant differences between the rarely/seldom and occasional categories with the rarely/ seldom group having less burnout. A similar pattern exists in the other sub-scales, although significant differences were not found. It appears that principals who usually have autonomy or rarely/seldom have autonomy are better off in terms of burnout than those who only occasionally have autonomy. It should be noted, however, that the rarely/ seldom group consisted of only six respondents and, because of the small size, the findings related to this group should be interpreted with caution.

In terms of test norms, all scores on the emotional exhaustion and depersonalization frequency sub-scale were in the low range; all scores on the personal accomplishment sub-scale were in the moderate range; and on the depersonalization strength sub-scale the rarely/seldom and usually groups had low burnout scores, while the occasionally and frequently groups had moderate burnout scores.

Opportunities for promotion. As noted in Table 5.12, principals who rated their opportunities for promotion as poor, fair or moderate had significantly higher burnout on the personal accomplishment frequency and strength measures of burnout than those who rated their opportunities for promotion as excellent.

This information may suggest that individual outlook may be a substantial factor in burnout in terms of personal

2

Table 5.12

One-way Analysis of Variance for Mean Scores on Burnout Sub-scales Classified According to Differences Within Categories of Opportunity for Promotion

Response Category (Number of Respondents)	A Poor (40)	B Fair (48)	C Moderate (58)	D Good (59)	E Excellent (10)	Significantly Different Groups
Emotional Exhaustion						
Frequency	15.23	12.67	12.74	13.26	9.00	None
Strength	20.83	18.77	18.92	18.20	10.80	None
Depersonalization						
Frequency	3.91	4.52	4.94	5.17	3.80	None
Strength	5.92	6.97	7.49	7.32	4.50	None
Personal Accomplishment						
Frequency	35.78	37.11	36.30	39.06	44.00	A-E, B-E, C-E
Strength	37.84	38.91	39.50	41.65	47.24	A-E, B-E, C-E

accomplishment. It is possible that individuals with a more enhanced sense of inner confidence may see their opportunities for promotion more optimistically than those who do not have the same inner directedness. It would be interesting to speculate whether these individuals who see their opportunities as excellent rate themselves in terms of system characteristics or personal characteristics.

Generally it appears that principals who see excellent prospects for promotion within their school system have significantly lower burnout on the personal accomplishment frequency and strength aspects than those who see promotion opportunities as poor, fair or moderate.

In terms of test norms, those principals who see opportunities for promotion as excellent have low burnout on personal accomplishment frequency and strength, while all other categories indicate moderate burnout.

Boundary spanning. As shown in Table 5.13, the frequency of dealing with agencies outside the school system accounted for significantly different scores on the personal accomplishment strength sub-scale of burnout.

Principals who reported that they very frequently deal with groups or agencies outside the school system had significantly lower burnout on personal accomplishment strength than those who reported that they occasionally or frequently deal with agencies outside the school system.

Table 5.13

One-way Analysis of Variance for Mean Scores on Burnout Sub-scales Classified According to Differences Within Categories of Boundary Spanning

Response Category (Number of Respondents	A Rarely Seldom (6)	B Occasionally (83)	C Frequently (96)	D Very Frequently (33)	Significantly Different Groups
Emotional Exhaustion					
Frequency	14.50	14.53	11.77	12.86	None
Strength	23.10	19.79	17.55	17.78	None
Depersonalization					
Frequency	3.16	5.27	4.21	4.66	None
Strength	6.16	7.27	6.94	6.21	None
Personal Accomplishment					
Frequency	34.50	37.31	36.98	39.81	None
Strength	35.86	39.56	39.38	43.58	B-D, C-D

This information suggests that principals who very frequently interact with groups beyond the school organization experience less burnout in terms of the strength of feelings of personal accomplishment than principals who have a more restricted circle of contacts beyond the school. Conversely this may mean that the greater the involvement with agencies beyond the school system the less burnout that will be experienced.

In terms of test norms, principals who indicated that they rarely or seldom had contact with groups or agencies outside the school system had high burnout on personal accomplishment strength, the occasionally and frequently group had moderate burnout and the very frequently group had low burnout scores.

Burnout and Role Conflict, Role Ambiguity, Overall Job Stress, Personal Life Stress, Leisure Time and Job Stressors

In this section attention is directed to the question posed by research sub-problem 1.3.

> What is the relationship between burnout and role conflict, role ambiguity, overall job stress, personal life stress, leisure time and identified job stressors when personal and situational variables are statistically controlled?

In the findings reported in this section, the influence of personal and situational variables was statistically controlled through the use of a multiple regression analysis technique. The variables of role conflict, role ambiguity, overall job stress, personal life stress, the use of leisure time, worry about school and job stressors were entered as the independent variables.

Results for each of the six sub-scales of the burnout inventory are presented. For each report in this section, when the independent variables accounted for less than 1 percent of the variance in the dependent variable they were not reported.

Emotional Exhaustion Frequency

As shown in Table 5.14, 18 percent of the variance in emotional exhaustion frequency was accounted for by the personal and situational variables. Overall job stress, however, accounted for a large portion of the remaining variance, with 23 percent. Role conflict, worry about school, and personal life stress accounted for proportionally smaller amounts of additional variance, with 4, 3 and 1 percent respectively. Role ambiguity, use of leisure time and identified job stressors had very little relationship to the scores for emotional exhaustion frequency, with each accounting for less than 1 percent of the variance.

It would seem from this analysis that principals' self-reports of overall job stress were reasonably strong predictors of the emotional exhaustion frequency aspect of burnout. Role conflict, worry about school and personal life

Table 5.14

Multiple Regression Analysis for Prediction of Emotional Exhaustion Frequency When Personal and Situational Variables Are Controlled

Predictor	Multiple R	R^2
Personal and Situational Variables	.426	.182
Overall Job Stress	.638	.407
Role Conflict	.670	.449
Worry Away from School	.691	.477
Personal Life Stress	.699	.488

stress were also significant predictors of this aspect of burnout. The other variables examined were not significant predictors.

Emotional Exhaustion Strength

As shown in Table 5.15, 22 percent of the variance in emotional exhaustion strength was accounted for by the personal and situational variables. Overall job stress accounted for 16 percent of the remaining variance. Role conflict and worry about school accounted for proportionately small amounts of the variance with 6 and 2 percent respectively. Role ambiguity, personal life stress, the use of leisure time and identified job stressors each accounted for less than 1 percent of the variance.

It would seem from this analysis that principal self-reports of overall job stress were the best predictors of the emotional exhaustion strength aspects of burnout. Role conflict, and worry about school, were also significant predictors of this aspect of burnout. Other variables were not significant predictors.

Depersonalization Frequency

As shown in Table 5.16, 15 percent of the variance in depersonalization frequency was accounted for by the personal and situational variables. Overall job stress accounted for 9 percent of the remaining variance. Role conflict and role ambiguity accounted for proportionately smaller amounts of

Table 5.15

Multiple Regression Analysis for Prediction of Emotional Exhaustion Strength When Personal and Situational Variables Are Controlled

Predictor	Multiple R	R^2
Personal and Situational Variables	.471	.222
Overall Job Stress	.620	.385
Role Conflict	.663	.440
Worry about School	.677	.459

Table 5.16

Multiple Regression Analysis for Prediction of Depersonalization Frequency When Personal and Situational Variables Are Controlled

Predictor	Multiple R	R^2
Personal and Situational Variables	.393	.154
Overall Job Stress	.489	.239
Role Conflict	.534	.285
Role Ambiguity	.552	.305

the variance, with 5 and 2 percent respectively. Personal life stress, worry about school, use of leisure time and identified job stressors each accounted for less than 1 percent of the variance.

It would seem from this analysis that principals' self reports of overall job stress were the best predictors of the depersonalization frequency aspect of burnout among the variables examined. Overall job stress, role conflict and role ambiguity were also significant predictors. Personal life stress, worry about school, use of leisure time and identified job stressors were poor predictors of the depersonalization frequency aspect of burnout.

Depersonalization Strength

As shown in Table 5.17, 18 percent of the variance in depersonalization strength was accounted for by the personal and situational variables. Role conflict accounted for 5 percent of the remaining variance, with the reported job stressor "getting teachers to do their job" and overall job stress accounting for proportionately smaller amounts of the variance, each with 1 percent. Role ambiguity, personal life stress, worry about school, the use of leisure time and the remaining job stressors accounted for less than 1 percent of the variance.

It would seem from this analysis that role conflict was the best predictor of the depersonalization strength aspect

Table 5.17

Multiple Regression Analysis for Prediction of Depersonalization Strength When Personal and Situational Variables Are Controlled

Predictor	Multiple R	R^2
Personal and Situational Variables	.425	.180
Role Conflict	.480	.230
Getting Teachers To Do Their Job	.489	.239
Overall Job Stress	.500	.250

of burnout. The identified job stressor, getting teachers to do their job, and overall job stress, were also significant predictors. Role ambiguity, personal life stress, worry about school, the use of leisure time and the other identified job stressors, were not significant predictors of the depersonalization strength aspect of burnout.

Personal Accomplishment Frequency

As shown in Table 5.18, 22 percent of the variance in personal accomplishment frequency was accounted for by the personal and situational variables. Role ambiguity accounted for 16 percent of the remaining variance, with the identified job stressor "mediating disputes" accounting for proportionately less variance, with 4 percent. Role conflict, overall job stress, personal life stress, worry about school, the use of leisure time and the remaining job stressors each accounted for less than 1 percent of the variance.

It would seem from this analysis that role ambiguity was the best predictor of the personal accomplishment frequency aspect of burnout, while the identified job stressor mediating disputes was also a significant predictor. The remaining variables, role conflict, overall job stress, personal life stress, worry about school, the use of leisure time and the other reported job stressors were poor predictors of the personal accomplishment frequency aspect of burnout.

Table 5.18

Multiple Regression Analysis for Prediction of
Personal Accomplishment Frequency When
Personal and Situational Variables
Are Controlled

Predictor	Multiple R	R^2
Personal and Situational Variables	.469	.220
Role Ambiguity	.617	.380
Mediating Disputes	.649	.421

Personal Accomplishment Strength

As shown in Table 5.19, 27 percent of the variance in personal accomplishment strength was accounted for by the personal and situational variables. Role ambiguity accounted for 17 percent of the additional variance, the identified job stressor "mediating disputes" and personal life stress accounting for proportionately smaller amounts of the additional variance, with 2 and 1 percent respectively. Role conflict, overall job stress, worry about school, the use of leisure time and the remaining identified job stressors each accounted for less than 1 percent of the variance.

It would seem from this analysis that role ambiguity was the best predictor of the personal accomplishment strength aspect of burnout while the identified job stressor, mediating disputes and personal life stress were also significant predictors. The remaining variables of role conflict, overall job stress, worry about school, use of leisure time and the other identified job stressors were poor predictors of the personal accomplishment strength aspect of burnout.

Burnout and Identified Job Stressors

In this section attention is addressed to the question posed by research sub-problem 1.4:

Table 5.19

Multiple Regression Analysis for Prediction of Personal Accomplishment Strength When Personal and Situational Variables Are Controlled

Predictor	Multiple R	R^2
Personal and Situational Variables	.518	.269
Role Ambiguity	.662	.439
Mediating Disputes	.677	.458
Personal Life Stress	.684	.469

What is the relationship between burnout and the job stressors identified by principals?

Principals were asked to respond to an open-ended question about stressful aspects of their job, and when these were coded and tabulated, eleven categories of job stressors were identified. Respondents indicated that these factors were the most stressful aspects of the job of principal.

An examination of the differences in burnout scores for those who selected a particular job stressor and those who did not was undertaken in the hope that it might shed some light on the possible factors contributing to burnout.

For each of the identified job stressors a statistical t-test of burnout scores was conducted to determine if there were significantly different mean scores for those who identified a particular job stressor and for those who did not. A t-test was performed on each of the six sub-scales of the burnout inventory; the results are reported on the following pages. Detailed results for these examinations are found in Appendix 7 and summarized on Table 5.20.

Emotional Exhaustion Frequency

Significantly different scores on the emotional exhaustion frequency sub-scale were found for only one of the eleven identified job stressors.

Principals who reported job demands as one of the most

Table 5.20

T-Tests for Burnout Sub-scales Classified According to Principals' Identified Sources of on the Job Stress

Identified Stressor	N	Emotional Exhaustion Frequency	Emotional Exhaustion Strength	Depersonalization Frequency	Depersonalization Strength	Personal Accomplishment Frequency	Personal Accomplishment Strength
Job Demands	50	*	-	-	-	-	-
Parents	46	-	-	-	-	-	-
Students	46	-	-	-	*	-	-
Teacher Evaluation	36	-	-	-	-	*	-
Cutbacks	30	-	-	-	-	-	-
Central Administration	24	-	-	-	-	-	-
Getting Teachers To Do Job	18	-	-	-	-	-	-
Staff Relations	17	-	-	*	-	-	-
Mediating Disputes	15	-	-	-	-	-	-
Student Achievement	14	-	-	-	-	-	-
Teaching and Administration	11	-	-	-	-	-	-

*Significant differences in burnout scores, at the .05 level, between respondents who identified this job stressor and those who did not.

stressful aspects of the job had significantly higher burnout on the emotional exhaustion frequency sub-scale than those who did not cite job demands as a stressor. This may suggest that those who find the regular routine of the job most stressful are more likely to experience frequent feelings of emotional exhaustion. It may further suggest that principals who have difficulty coping with the interruptions, demands, and routines that are a part of the job may more frequently feel emotionally exhausted than those who accept the routine in stride.

In terms of test norms, both those who identified job demands as a stressor and those who did not, had low mean burnout scores on the emotional exhaustion frequency sub-scale.

Emotional Exhaustion Strength

On this sub-scale of the burnout inventory, there were no significantly different mean scores for those who identified specific job stressors and those who did not.

Depersonalization Frequency

Principals who identified staff relations as a major source of job stress had significantly higher burnout on the depersonalization frequency sub-scale than those who did not identify staff relations as a stressor. This seems to suggest that those who have problems in the area of staff relations tend also to deal with others in a depersonalized way more frequently.

Both groups had low burnout scores in terms of test norms.

Depersonalization Strength

Principals who identified students as a major source of job stress had significantly higher burnout on the depersonalization strength sub-scale than those who did not identify students as a stressor.

This information seems to coincide with the findings on the depersonalization frequency sub-scale. Dealing with teachers correlated with frequent feelings of depersonalization while dealing with students correlated with strong feelings of depersonalization. This may reflect the nature of dealings with students which are often intense and short-lived and thus result in stronger feelings of depersonalization.

Principals who identified students as a source of stress had moderate burnout scores in terms of test norms. The remainder had low burnout scores.

Personal Accomplishment Frequency

The principals who identified teacher evaluation as a source of job stress had significantly lower burnout on the personal accomplishment frequency sub-scale than those who did not identify teacher evaluation as a stressor.

This seems to suggest that those principals who take evaluation seriously and find it stressful are also the ones who have a greater sense of personal accomplishment and score significantly lower on this aspect of burnout. Although teacher evaluation is seen as stressful, those who recognize it as a stressor also tend to deal with it rather well in that they have a significantly higher sense of personal accomplishment than those who did not see evaluation of teachers as a stressor.

Both groups had moderate burnout scores in terms of test norms.

Personal Accomplishment Strength

On this sub-scale of the burnout inventory there were no significantly different mean scores for those who identified specific job stressors and those who did not.

Burnout and Leisure Time Activities

In this section attention is addressed to the question posed by research sub-problem 1.5:

> What is the relationship between burnout and the leisure time activities identified by principals?

Principals were asked to respond to an open-ended response question about the type of leisure time activities engaged in that they considered to be most relaxing. When these responses were coded and tabulated nine categories of responses were obtained.

For each of the identified leisure time activities a t-test of burnout scores was undertaken to determine if there were significantly different scores for those who identified a particular job stressor and those who did not.

For all six sub-scales of the burnout inventory no significantly different scores were found. This indicated that those who had specific leisure time activities did not have burnout scores that were significantly different from the overall sample of principals. It may have been interesting to examine those who did not select a leisure time activity to see if it is perhaps the presence of a leisure time activity that is more important than the choice of activity.

The summary of this examination is shown in Appendix 8.

Summary

This chapter contained a presentation of the findings related to the major research question posed in the study. The data were analyzed to determine the level of burnout experienced by school principals and the relationship of burnout to personal and situational characteristics, role conflict, role ambiguity, overall job stress, personal life stress, worry about school, use of leisure time, identified job stressors and leisure time activities.

Burnout scores for principals were found to be low to moderate. Relationships between burnout and the personal and situational variables were identified, with the personal variables being the stronger predictor of burnout. Significantly different burnout scores were found to exist between categories of responses for all six personal variables and for four of the eight situational variables.

Role ambiguity was found to be a significant predictor of the personal accomplishment aspect of burnout, while ratings of overall job stress were found to be a significant predictor of the emotional exhaustion aspect of burnout. The identified job stressors were found to account for significant differences in the emotional exhaustion frequency, depersonalization frequency, depersonalization strength and personal accomplishment frequency aspects of burnout.

Role conflict, personal life stress, worry about school, use of leisure time and identified leisure time activities were found to have little relationship to levels of burnout experienced by principals.

CHAPTER 6

Summary, Conclusions and Implications

This chapter contains an overview of the study, a presentation of the major findings and conclusions, and an outline of the implications drawn from the findings. The chapter is divided into six major sections comprising (a) an overview of the study, (b) a summary of the findings, (d) conclusions, (e) implications, and (f) general impressions.

Overview of the Study

The major purpose of the study was to examine the nature of burnout among school principals and the relationship of burnout to selected personal, situational, organizational, leisure time and job stressor variables.

Since the coining of the term by Freudenberger in 1974 burnout has been extensively discussed in the literature with reference to a variety of work situations. There was, however, little consensus on the meaning of the term until Maslach and Jackson (1981A:1) defined burnout as a "syndrome of emotional exhaustion and cynicism." This definition has since been widely accepted and the pioneering work by

Maslach and Jackson in the development of the Maslach Burnout Inventory has led to expanded activity in the field. As a result, most research on burnout is very recent; little of this research has been concerned with burnout among school principals.

Before this study was undertaken it was felt that an expanded understanding of the relationship between burnout and the personal, situational, organizational, leisure time and job stressor variables among school principals could provide direction for improving the job design, job satisfaction and job performance of school principals. Furthermore, since the study of burnout was relatively new, it was proposed that the exploration of the relationships outlined in this study could provide insight leading to an enhanced understanding of burnout and its correlates and provide direction for future study.

The Kyriacou and Sutcliffe (1978) model of teacher stress was used as the conceptual framework for the study. In this transactional model stress arises when an imbalance is perceived between the demands placed on a person and the ability required of that person to meet those demands. The burnout dimension of stress, which was the basic concept examined, and the personal, situational and leisure time variables examined in relation to burnout have been incorporated in this model of stress.

The major objective of the research was to describe burnout among school principals and examine the relationship between burnout and selected variables. The research question investigated was stated in the following terms:

> To what extent do principals experience burnout and what is the relationship of burnout to personal, situational, organizational, overall job stress, personal life stress, leisure time and job stressor variables?

The respondents were 272 principals from the province of Nova Scotia. A stratified random sample of principals was selected, using school size and type as the criteria so that all sizes and types of schools were represented. A questionnaire was mailed and responses were obtained from 229 of the principals surveyed; the number of responses represented 84 percent of the sample and 40 percent of the principals in the province.

Data were collected by means of a 56-item questionnaire which contained four sections on (a) background information, (b) burnout, (c) role conflict and role ambiguity, and (d) job stress and personal life. The data analysis techniques reflected the descriptive and exploratory nature of the study. Descriptive statistical techniques such as means and frequencies were used to describe the sample. The statistical techniques of multiple regression analysis, analysis of variance, and t-tests were used to examine relationships.

Summary of the Findings

Results for the Maslach Burnout Inventory were reported for six sub-scales: (a) emotional exhaustion frequency and strength, how often and how strongly one feels emotional overextension and exhaustion caused by one's work; (b) depersonalization frequency and strength, how often and how strongly one provides an impersonal and unfeeling response toward recipients of one's service, care, treatment or instruction; and (c) personal accomplishment frequency and strength, how often and how strongly one feels an absence of a feeling of competence and successful achievement of one's work with people.

The responses to the Maslach Burnout Inventory indicated that principals in the sample surveyed were not experiencing high degrees of burnout. On the emotional exhaustion and depersonalization burnout sub-scales principals recorded low mean scores. On the personal accomplishment sub-scales the mean scores indicated moderate degrees of burnout.

In general, the principals in this study were not suffering from debilitating degrees of burnout; on the contrary, they appeared to be experiencing little burnout in their jobs. There was some moderate burnout in terms of their own assessment of personal accomplishment, but the results did not indicate chronic problems.

The relationship of burnout to the personal, situational, organizational, leisure time and job stressor variables was examined through five sub-problems. Each of the sub-problems is stated below, along with a summary of the major related findings.

Research Sub-Problem 1.1: Personal Variables

> What is the relationship between burnout and the selected personal variables of the principals?

The personal variables examined in this analysis were age, experience, length of time in the same school, type of training, desire for promotion and propensity to leave the school or the job. Regression analysis revealed that personal variables, taken together, accounted for a significant portion of the variance in both the emotional exhaustion and personal accomplishment sub-scales. The analysis of variance for differences between categories of personal characteristics also revealed significant differences. The results of the analysis of variance for each of the personal variables is reported on the following pages.

Age. On all six burnout sub-scales the 39-and-under age category was significantly different from the two older categories. The 39-and-under age group had significantly higher burnout on emotional exhaustion and depersonalization, and significantly lower burnout on personal accomplishment.

Experience. Significant differences between levels of experience were found on only the personal accomplishment frequency sub-scale. Principals with 1-5 years of experience had significantly lower burnout than principals with 11-15 years of experience.

Years in same school. Significant differences between years spent as principal in the same school were found on only the personal accomplishment frequency sub-scale. Principals with 1-2 and 5-6 years of experience in the same school had lower burnout than principals with nine or more years' experience in the same school.

Training in educational administration. Significant differences between levels of graduate training in educational administration were found on the personal accomplishment frequency and strength sub-scales. Principals with some training in educational administration had significantly higher burnout on the frequency dimension than principals who had no training and those who had completed Master's or Ph.D. degree programs. Similarly, principals with some training in educational administration had significantly higher burnout on the strength dimension than principals who had completed Master's or Ph.D. degree programs.

Desire for promotion. Significant differences between principals' ratings of desire for promotion were found on the personal accomplishment frequency and strength sub-scales. Principals who rated their desire for promotion as high had significantly lower burnout on the frequency dimension than principals who rated their desire for promotion as either very low or moderate. Similarly, principals who rated their desire for promotion as high or very high had significantly lower burnout on the strength dimension than principals who rated their desire for promotion as either very low, low, or moderate.

Propensity to leave. Significant differences between principals' ratings of desire to leave the school or system were found on the emotional exhaustion frequency and strength sub-scales. Principals who indicated a desire to change fields completely had significantly higher burnout on the frequency dimension than principals who indicated a desire either to stay in the same school or to change schools. Similarly, principals who indicated a desire to change jobs in education or to change fields completely had significantly higher burnout on the strength dimension than principals who indicated a desire to stay in the same school.

Research Problem 1.2: Situational Variables

> What is the relationship between burnout and the situational characteristics of principals?

The situational variables examined in this analysis were school type, school size, type of community, time spent teaching, extent of teacher supervision, opportunities for promotion, autonomy and boundary spanning. Regression analysis revealed that situational variables, taken together, accounted for a significant portion of the variance on the personal accomplishment sub-scales. The analysis of variance for differences between categories of situational characteristics revealed no significant differences for school type, school size, type of community and time spent teaching. The results of the analysis of variance for the other situational factors is reported on the following pages.

Supervision of teachers. Significant differences in the extent of teacher supervision were found on the personal accomplishment frequency and strength sub-scales. Principals who indicated that they very frequently supervised teachers had significantly lower burnout on the frequency and strength dimensions than principals who indicated that they occasionally supervised teachers. In addition, principals who indicated that they very frequently supervised teachers had significantly lower burnout on the strength dimension than principals who indicated that they rarely or seldom supervised teachers.

Autonomy. Significant differences in the reported level of principal autonomy were found on the emotional exhaustion strength, depersonalization and personal accomplishment frequency sub-scales. Principals who reported that they usually had autonomy had significantly lower burnout in terms of emotional exhaustion strength, depersonalization strength and personal accomplishment frequency than principals who reported occasional autonomy. The principals who reported that they usually had autonomy also had lower burnout in terms of emotional exhaustion strength than principals who reported frequent autonomy. Similarly, principals who reported that they frequently had autonomy had significantly less burnout in terms of personal accomplishment frequency than principals who indicated that they occasionally had autonomy.

On the depersonalization frequency sub-scale, however, principals with more autonomy had higher burnout. Those who reported that they had occasional autonomy had significantly higher burnout than the six principals who reported that they rarely or seldom had autonomy. However, this result could be questionable because of the small size of one group.

Opportunities for promotion. Significant differences in principals' ratings of opportunities for promotion were found on the personal accomplishment sub-scales. Principals who rated their opportunities for promotion as excellent had significantly lower burnout than principals who rated their opportunities for promotion as poor, fair or moderate.

Boundary spanning. Significant differences in principals' reported dealings with agencies outside the school system were found on the personal accomplishment strength sub-scale. Principals who reported that they very frequently dealt with agencies outside the school system had significantly lower burnout than principals who reported that they occasionally or frequently dealt with agencies outside the school system.

Research Problem 1.3: Burnout, Role Conflict, Role Ambiguity, Overall Job Stress, Personal Life Stress, Leisure Time and Job Stressors

> What is the relationship between burnout and role conflict, role ambiguity, overall job stress, personal life stress, leisure time and identified job stressors when personal and situational variables are statistically controlled?

In the examination of these relationships each of the sub-scales of burnout was used as the criterion variable, and the influence of personal and situational variables was controlled through the use of multiple regression analysis. In this way the influence of each of the independent variables could be assessed with the influence of personal and situational variables statistically removed. The results of this analysis for each of the predictor variables in outlined on the following pages.

Role conflict. From the analysis of the data, role conflict emerged as a predictor of the emotional exhaustion and depersonalization aspects of burnout. It accounted for a small portion of the additional variance with percentages ranging from four percent to six percent.

Role ambiguity. On the personal accomplishment sub-scales and the depersonalization frequency sub-scale, role ambiguity was a significant predictor variable, accounting for sixteen, seventeen, and two percent of the variance respectively. On the other three scales it accounted for less than one percent of the additional variance.

Overall job stress. The principals' rating of their experienced overall job stress was a significant predictor of the emotional exhaustion frequency and strength and the depersonalization frequency and strength aspects of burnout with twenty-three, sixteen, nine and one percent of the variance accounted for respectively. For each of the two personal accomplishment sub-scales overall job stress was a poor predictor and accounted for less than one percent of the additional variance.

Personal life stress. Principals' ratings of personal life stress were found to be a poor predictor of burnout. It accounted for one percent of the variance in emotional exhaustion frequency and personal accomplishment strength and less than one percent of the additional variance in each of the other four burnout sub-scales.

Leisure time. The use of leisure time by principals was found to be a poor predictor of burnout. Leisure time accounted for less than one percent of the additional variance in each of the six burnout sub-scales.

Worry about school. On the emotional exhaustion frequency and strength sub-scales, worry about school accounted for three and two percent of the variance respectively. For the other sub-scales less than one percent of the additional variance was accounted for.

Research Problem 1.4: Burnout and Identified Job Stressors

> What is the relationship between burnout and the job stressors identified by principals?

In the questionnaire, principals were asked to identify the aspects of their job that they considered to be most stressful. A total of 319 job stressors were listed by the principals and these responses were grouped and regrouped until eleven categories of stressors were identified. To address the research question, t-tests were conducted to determine if those principals who selected a particular stressor had mean scores on the burnout sub-scales that were significantly different from those who did not select that stressor.

The t-test on each of the eleven identified stressors revealed significantly different scores for four job stressors on four of the burnout sub-scales. They were:

(a) principals who identified job demands as a stressor had significantly higher burnout in terms of emotional exhaustion frequency;

(b) principals who identified staff relations as a stressor had significantly higher burnout in terms of depersonalization frequency;

(c) principals who identified students as a stressor had significantly higher burnout in terms of depersonalization strength; and

(d) principals who identified teacher evaluation as a stressor had significantly lower burnout in terms of personal accomplishment frequency.

Research Problem 1.5: Burnout and Leisure Time Activities

> What is the relationship between burnout and the leisure time activities identified by principals?

In the questionnaire, principals were asked to identify relaxing activities that they engaged in during their leisure time. A total of 567 leisure time activities were listed by the principals and the responses were grouped and regrouped until nine categories of responses were obtained. To address the research question t-tests were conducted to determine if there were significantly different mean scores on the burnout sub-scales for those who selected a particular leisure time activity and those who did not select that activity. The results for all nine categories of activities on all six sub-scales of burnout were negative. No significant differences were found to exist.

Discussion of Findings

Although little research has been undertaken to examine burnout among school principals, much has been written in professional journals and elsewhere about the extent of stress in the role of school principals. If principals are experiencing prolonged and severe stress, then as Kyriacou and Sutcliffe (1978) point out in their model of stress, chronic symptoms of stress should be apparent. Therefore, if burnout is considered a chronic symptom of stress and if principals are experiencing the high degrees of stress referred to in the literature, burnout should be apparent.

The findings of this study, however, lend support to the recent findings of Jankovic (1983) that principals, as a group, are not experiencing high levels of stress in their jobs and are, instead, coping well with job demands. Principals in this study experienced a moderate degree of burnout in terms of personal accomplishment, yet in terms of emotional exhaustion and depersonalization the results indicated low degrees of burnout. Considering the number of principals sampled and the high rate of return (84 percent), it is reasonable to claim that principals in Nova Scotia are not generally suffering from chronic job stress as described in some of the literature. An examination of the findings, however, does reveal that there are correlates of burnout that may provide some insight into the nature of the stress experienced by school principals.

On the following pages each of the three major dimensions of burnout is discussed in relation to the findings of the study.

Personal Accomplishment

The personal accomplishment aspect of burnout was the one area that appeared to reflect a feeling of distress among school principals. On the average, principals did not feel that they were accomplishing as much as they should or could in their jobs.

The failure to achieve according to expectations is considered by some writers to be the most significant indication of burnout. Veninga (1979), for example, claims that burnout is the failure to realize one's expectations. This is supported by the writing of Paine (1981) who refers to what he calls the Burnout Mental Disability. He maintains that when a person reaches this stage in the burnout process he has a serious, often clinically significant pattern of personal distress and diminished performance that he classifies as an end state in the burnout process.

Both of these authors express grave concern over experiences of failure to meet goals or challenges. The findings of this study indicated that, of the three aspects of burnout measured, failure to have feelings of personal accomplishment was the most serious for principals. The reasons for this lack of a sense of achievement were not readily apparent. There were a number of correlates identified with this aspect of burnout, but further examination is required to understand why this condition should exist.

It has been suggested by Maslach (1977) and Pines and Aronson (1981) that burnout is largely the result of environmental influences. Situational factors examined in this study were able to account for a significant portion of the variance in the personal accomplishment sub-scales. When examined individually, several of these situational variables were also found to account for significant differences in mean scores. Supervision of teachers, boundary spanning, autonomy, and opportunities for promotion were all found to be significantly related to the personal accomplishment sub-scales. This may lend support to the contention in the literature that situational factors have a considerable role to play in the determination of the level of burnout experienced by principals.

It may be interesting also to speculate about the kind of situational variables that were found to be significantly related to burnout. School size, school type, school location, and the amount of time spent teaching had no significant relationship. Yet the four factors that required the respondents to do some interpretation were found to be significantly related. It may be suggested by some readers that these situational factors may be more personal than at first expected and if so may lend greater support to the importance of personal variables in the experiencing of burnout.

Although the role of personality factors in burnout is recognized in burnout studies, Maslach (1977) and Pines and Aronson (1981) contend that burnout is primarily in the environment and not in the person. In this study the findings give considerable weight to the importance of personal variables. When taken together they accounted for a significant portion of the variance on the personal accomplishment sub-scales. When examined individually there were significantly different mean scores on personal accomplishment for age, years as a principal, number of years in the same school, training in educational administration and desire for promotion. These findings lead to speculation that personal characteristics may be far more important in the understanding of burnout than the literature indicates.

When personal and situational variables were entered together in the multiple regression analysis they were able to account for a significant portion of the variance in the personal accomplishment sub-scales, with twenty-two percent for the frequency dimension and twenty-seven percent for the strength dimension. Considering the size of these percentages, the personal and situational variables are important predictor variables in the degree of personal accomplishment burnout experienced by principals.

Role ambiguity was found to be the best predictor of the personal accomplishment aspect of burnout. It accounted for sixteen and seventeen percent of the additional variance on the frequency and strength dimensions when personal and situational variables were controlled by using multiple regression analysis.

This finding is consistent with the literature by Maslach (1982), Pines and Aronson (1981), Heckman (1980), and Mattingly (1977) who emphasize the importance of role ambiguity as a predictor of burnout. Shaw, Bensky and Dixon (1981) also strongly support the influence of role ambiguity, and they claim that burnout is largely the result of exposure to ambiguous, inconsistent and uncontrollable demands.

The finding that personal accomplishment was the area of greatest burnout among principals invites speculation as to the reason. It may be, as Veninga (1979) claims, that after several years in the job principals no longer engage in risk-taking behavior and instead structure their administrative actions to promote their own security. In so doing they reduce their opportunities for accomplishment. It may also be that what Freudenberger (1974) calls the boredom and routinization of the job, begins to play a greater role as people become more settled in their positions.

Veninga (1979) also suggests that burnout may be the result of having responsibility without the necessary authority or resources. For principals, the need to cancel important services for bureaucratic or financial reasons could be a contributing factor in personal accomplishment burnout.

The type of person who becomes a principal may also partially explain the higher burnout scores on the personal accomplishment dimension. Veninga (1979) maintains that it is often idealists, the highly motivated individuals and the hard workers, who are most likely to suffer from burnout; they believe that they can accomplish a great deal. Perhaps principals are usually idealistic, and when faced with the constraints of working in a school setting they become disillusioned by what they are actually able to accomplish.

Personal accomplishment was the area where principals experienced the greatest burnout, yet the norms for the Maslach Burnout Inventory suggested that they surveyed principals were experiencing moderate degrees of burnout. Despite the low levels of burnout found, there were significant correlations with several of the other variables examined. This may suggest that the variables identified in relation to burnout will have even stronger relationships if greater degrees of burnout are experienced. For this reason, further investigation of these relationships seems warranted.

Role conflict did not have a significant predictive relationship to the personal accomplishment aspect of burnout. Several writers have claimed that role conflict is a powerful antecedent to burnout. Yet the findings of this study did not support that contention. Similarly, no significant relationships were established with overall job stress, personal life stress and identified leisure time activites.

In the t-test analysis, one of the identified job stressors, evaluation of teachers, was found to have a relationship to personal accomplishment frequency. This is an interesting finding, as principals who identified teacher evaluation as a job stressor had lower burnout than those who did not identify evaluation as a stressor. This may suggest, as outlined in the conceptual model for the study, that potential occupational stressors need not become actual occupational stressors. The principals who evaluate teachers often and feel under stress when doing so also appear to experience less burnout in terms of personal accomplishment. This implies that evaluation of teachers may have reciprocal benefits for both teachers and principals.

Emotional Exhaustion

Feelings of emotional exhaustion associated with burnout were not found to be a serious problem among the principals surveyed. Mean scores for all principals indicated a low degree of burnout on this scale.

Much of the literature on burnout stresses the emotional exhaustion aspect of burnout, yet this did not emerge as a major burnout factor among school principals. This suggests that principals are not distressed by the demands of their jobs and are not, as Perlman and Hartman (1980) propose, left emotionally and physically exhausted by their work. A great deal of the literature in professional journals describes the emotional and physical demands placed upon principals. The findings of this study do not support those claims. Principals were not suffering from high degrees of burnout in terms of emotional exhaustion.

Emotional exhaustion burnout, however, did correlate with several of the other variables examined. As predicted in the literature, the situational variables accounted for a significant amount of the variance. However, greater variance was accounted for on the strength dimension than on the frequency dimension. When each of the situational variables was examined separately, only autonomy was able to account for significantly different mean burnout scores. This is not consistent with the literature which has emphasized the importance of environmental factors in the prediction of burnout.

The personal variables, when taken together, were significant predictors of emotional exhaustion burnout. When each of the personal variables was examined separately, significantly different burnout levels were found to exist between groups for the personal variables of age and propensity to leave. Although personal factors, in general, have not been linked to higher or lower levels of burnout, studies by Gann (1979), Heckman (1980) and Schwab (1981) have found a relationship with age. Maslach and Jackson (1981B) also claim that there is a direct relationship between someone's desire to change jobs and the level of burnout experienced. These findings support some of the recent literature and research on burnout but leads to speculation that the personal variables have been given less emphasis than they deserve.

The importance of the personal variables as predictors of the emotional exhaustion aspect of burnout seems evident in the findings of this study. They seem to occupy a position of greater importance than is indicated in the writings of Maslach and others.

The personal and situational variables, when entered as controls in a regression analysis, were able to account for eighteen and twenty-two percent of the variance on the emotional exhaustion strength and frequency sub-scales of burnout. The best single predictor of this aspect of burnout, however, was the principal's rating of overall job stress. When entered in the regression analysis after the personal and situational variables, it accounted for twenty-two and sixteen percent of the remaining variance. Thus there is significant prediction of the emotional exhaustion aspect of burnout from a simple rating of perceived job stress. This indicates that asking principals how stressful they find their job may be an effective way to predict this aspect of burnout.

Role conflict was also a significant predictor of the emotional exhaustion associated with burnout consistent with the claims by several writers, including Schwab (1981), Crane (1982), and Westerhouse (1979), that role conflict was significantly related to burnout.

The use of leisure time and personal life stress were found to have little predictive ability with regard to emotional exhaustion. The work by Maslach (1978) and by Jackson and Maslach (1982) has presented claims that there is a strong link between work life and home life. The findings of this study do not support this claim, as very little relationship was found to exist between burnout and personal life stress, and the choice of leisure time activities. Worry about school, however, accounted for a small but significant portion of the variance.

For the identified job stressors, principals who listed job demands as a major source of stress had significantly higher burnout than those who did not see job demands as a stressor. This is consistent with what was proposed in the conceptual model of stress for the study. The level of stress may not be related so much to the person's actual ability to do the job as it is to his own perception of his ability to cope. If one sees job demands as a stressor, then it is likely that that principal will find stress in the job and if the stress is prolonged and severe then burnout is likely to emerge.

Depersonalization

Feelings of depersonalization were not found to be a serious problem among principals. On both dimensions of the depersonalization sub-scale the results indicated low degrees of burnout.

The literature contains considerable material on the damage that prolonged and severe stress may have upon one's interpersonal relations with others in the work setting. Maslach (1977) claims that the demands placed on the worker in a helping relationship lead to negative perceptions of the client, with the result that there is a loss of concern for the people with whom one is working. Consequently people tend to be treated in a detached or even dehumanized way.

The findings of this study do not support that claim for principals. There is little evidence that principals deal with students or teachers in a depersonalized manner. It is possible that these findings are different from the literature because the helping relationship and the client interaction are different from those that exist between teacher and student or therapist and patient. Nevertheless, the principals' low degree of burnout on the depersonalization sub-scale is not consistent with the literature on burnout.

The situational variables were a significant predictor of depersonalization, which is consistent with the literature on environmental influence on burnout. The personal variables were a weaker but significant predictor of this aspect of burnout. This also supports the general literature on burnout that places personal characteristics in a position of secondary importance in predicting burnout.

Of the individual situational and personal variables examined, principals who were older and had greater autonomy had significantly lower burnout scores. This also confirms what has been previously reported in the literature about age and autonomy.

Role conflict, overall job stress and role ambiguity were also significant predictors of the depersonalization aspects of burnout. Personal life stress, worry about school, and leisure time activities were found to be poor predictors of burnout, despite the literature linking these variables with burnout.

For the specified job stressors, principals who identified students or staff relations as a major source of on-the-job stress had significantly higher burnout than principals who did not list these stressors. This is an expected relationship. The interpersonal demands of dealing with students or staff in situations that are often intense and emotionally charged create the kinds of condition that the literature argues leads to depersonalization of relations.

General Observations

The findings, as reported here, indicated that several of the factors studied appeared to have little relationship to the level of burnout experienced by Nova Scotia principals. Personal life stress, worry about school, and leisure time activities were found to have little relationship with burnout on the six sub-scales measured. This is in contrast with the literature on burnout, which claimed that there was a very close link between job stress and home life.

Role conflict was found to have a relationship to burnout. The literature identified role conflict as a potential occupational stressor, and linked it with a variety of stress-related emotions such as anxiety, stress, job tension, and fatigue. Several studies had found a significant relationship between role conflict and the emotional exhaustion aspect of burnout, as was the case in this study. Role conflict was found to be a significant predictor of burnout on four of the six dimensions examined.

Four of the identified job stressors were found to have a relationship to burnout. Principals who cited job demands, staff relations or students, as stressors had significantly higher burnout while those who cited teacher evaluation as a stressor had significantly lower burnout than those who did not identify that stressor.

Age and degree of autonomy were also found to be important considerations in burnout. The younger principals and those who felt that they did not have the freedom to operate their schools as they saw fit experienced a greater degree of burnout. It was also found that principals who expressed a desire to leave the job of principal or to get out of education completely were likely to experience higher degrees of burnout.

The greatest burnout among the Nova Scotia sample of principals, however, appeared to be in the area of personal accomplishment. The findings of this study indicated that the principals who were thirty-nine years of age and over had a desire for promotion, had few opportunities for promotion, had only some training in educational administration, who had been in the same school for nine or more years, had eleven to fifteen years' experience as principal, and only occasionally supervised teachers were most likely to experience burnout in terms of personal accomplishment.

Greater degrees of personal accomplishment burnout for principals were found in the later stages of their careers as principals. This may suggest that the greatest danger to principals is not active burnout but passive burnout. As indicated by some writers, stagnation, boredome and routinization are as much correlates of burnout as active job demands. It would appear that the older, more settled and less career-motivated principal is more likely to experience burnout than one who is actively involved in establishing and improving his or her career.

Much has been written about the dangers of stress associated with role ambiguity. In this study, role ambiguity correlated with a reduced sense of personal accomplishment among principals, but there was no significant relationship between role ambiguity and the emotional exhaustion and little relationship with the depersonalization aspects of burnout. It appeared that role ambiguity and burnout, as examined in this study, did not have the consistently strong relationship that was predicted in the literature.

From the findings it may be possible to generalize and prepare a composite description of a principal likely to experience burnout. The principal prone to burnout is probably under thirty-nine years of age, has eleven to fifteen years' experience as a principal, has served for nine or more years in the same school, has had some graduate training but no diploma or degree in educational administration, wants to change jobs in education or get out of education completely, and indicates that overall job stress and role conflict are concerns. In the school situation he rarely supervises teachers, has little autonomy, has poor to moderate opportunities for promotion, and has only occasional dealings with agencies outside the school system. Asked about the stressful aspects of his job, this principal names them as dealing with students, staff relations, teacher evaluation and the day-to-day demands of the job.

Conclusions

The following conclusions were drawn from the findings of the study and the preceding discussion of the findings in relation to the literature.

1. On the average, principals in Nova Scotia were not suffering from high degrees of burnout. Moderate burnout mean scores were reported for personal accomplishment burnout and low mean scores were reported for emotional exhaustion and depersonalization burnout.

2. There was a strong predictive relationship between the personal and situational variables and burnout. When examined individually there was a strong relationship with the personal accomplishment aspect of burnout and little relationship with the emotional exhaustion and depersonalization aspects of burnout.

3. The importance of personal variables in predicting burnout appeared to have greater significance than is currently reported in the literature. For four of the six aspects of burnout examined, personal variables were very strong predictors.

4. The interpersonal demands of the job as principal were related to burnout. Three of the four job stressors that accounted for significantly different mean burnout scores required that principals act as mediator or evaluator. In addition, two of the other identified job stressors,

getting teachers to do their jobs and mediating disputes, were significant predictors of the personal accomplishment frequency and depersonalization strength aspects of burnout in the regression analysis.

5. Overall job stress was the best predictor of the emotional exhaustion frequency, emotional exhaustion strength and depersonalization frequency aspects of burnout and was a significant predictor of the depersonalization strength burnout.

6. Role conflict was the best predictor of the depersonalization strength aspect of burnout and was a significant predictor of emotional exhaustion frequency, emotional exhaustion strength and depersonalization frequency burnout.

7. Role ambiguity was the best predictor of personal accomplishment frequency and personal accomplishment strength burnout and was also a significant predictor of depersonalization frequency burnout.

8. School location, school size and school type had no significant relationship with the level of burnout experienced by principals. No significant differences were indicated, whether schools were rural, village or urban; elementary, junior high or senior high; large or small.

9. The use of leisure time, personal life stress and the choice of leisure time activities had little relationship to burnout.

Implications for Research and Practice

Implications drawn from the findings of the study are reported in this section under the headings of (a) theory and research and (b) practice.

Theory and Research

The multidimensional nature of burnout, as described in the literature, has been confirmed in this study. No single variable had a consistent relationship with the aspects of burnout examined. There remains a need for further exploration of burnout among school principals to determine if the results of this study are typical for principals elsewhere. It may also be interesting to study the effect of combinations of variables on the level of burnout. For example, the interrelationship between age and role ambiguity and their combined effect could produce new insight into burnout.

The size, type or location of the school is not so important, it appears, as the operating style or job design within the school system. Autonomy, role ambiguity, boundary spanning, teacher supervision, and opportunities for promotion are factors that can be controlled within a school system. The findings indicate that job-related factors have a significant relationship with burnout. Additional research into the qualitative nature of the job situation may produce meaningful results.

In this study, attempts to examine the relationship between personal life stress and burnout have produced no new information on burnout. If, as some writers contend, there is a relationship between burnout and personal life, some other method of obtaining information on personal life should be employed. The findings related to personal life stress, worry about school, use of leisure time and identified leisure time activities do not provide support for a relationship between these variables and burnout.

Interpersonal relationships may be an important area to examine in relation to burnout. Principals who identified relations with staff and relations with students as stressful aspects of the job also recorded higher levels of burnout. The importance of interpersonal relationships in the job situation could warrant further investigation. The literature of burnout and the demands of interpersonal relations in the helping professions would lend further support to this kind of investigation.

Burnout has been described by some writers as the failure to meet one's expectations. This appears to be upheld in this study; burnout in terms of personal accomplishment was the most serious concern. More investigation of the relationship between expectations and performance may shed light on the meaning of burnout to principals. The relationship between the age and sense of accomplishment of principals, which showed statistical significance, could become the basis for further investigation. It would be interesting to discover what causes a reduction in the principals' sense of personal accomplishment as they get older.

A study of the relationship between burnout and role ambiguity could provide some insight into the nature of burnout in the school setting. Some writers contend that job stress reduces one's ability to handle role ambiguity, while others claim that role ambiguity leads to job stress and burnout. It might prove valuable to examine role ambiguity and burnout in a longitudinal study to determine the interrelationship between these factors.

The findings of this study indicate that burnout may not be a chronic problem for educators. There is some burnout but it may not be as widespread as many are led to believe. Principals, in this study, were effectively coping with the demands of their jobs. It may be beneficial in future research to identify individuals who are suffering from burnout and examine the characteristics which these individuals have in common. Burnout does not appear to be a systemic problem but rather a personal problem.

Considering the low levels of burnout recorded by the group of principals surveyed it appears that principals are doing an effective job in managing the personal demands of the occupation. Studies of teachers by Westerhouse (1979), Schwab (1981), Crane (1982) and Anderson (1982) have resulted in different relationships with some of the same variables examined in this research. This might lead to the speculation that within the field of education, the demands made on teachers in their dealings with students are different from the demands made on principals. Perhaps the principal, because of his position of control, has greater resources and personal freedom to cope with the demands of the job than teachers have. A comparative study of stress and burnout among teachers and principals in the same setting might provide useful insight into the nature of burnout in the school setting.

One of the most significant findings of this research may be in the importance of personal variables in the prediction of burnout. Much of the work by Maslach emphasized the importance of environmental factors in predicting burnout. In this study the environmental factors continue to be important but personal variables may be better predictors. If this finding is supported in other research, perhaps the time has come to re-examine the Maslach concept of burnout and place greater emphasis on the predictive value of personal variables and the interaction between the environment and the person as a basis for burnout research.

The Maslach Burnout Inventory used in the collection of data on burnout may not have been the most effective instrument for collecting burnout data, even though it is the most commonly used instrument in burnout research. Several respondents complained that the "how often" and "how strong" responses to the same question were confusing. The Maslach Burnout Inventory itself was quite long and the nature of responses required was somewhat vague. A number of principals indicated that they had responded as well as they could on that part of the questionnaire, but felt that they did not know how to respond to some of the questions. Others answered some questions, but did not complete the entire section; although they made no comments, they obviously experienced problems in responding.

From a theoretical point of view the Maslach Burnout Inventory was developed with a concept of burnout that placed considerable emphasis on the environment and little emphasis on personal traits of individuals. The findings of this study indicate support for a transactional model of burnout with greater recognition of the individuals' personal traits.

At this stage in the understanding of the concept of burnout new insights are evolving that are different from the theory used in the development of the Maslach Burnout

Inventory. Perhaps the time has come to critically examine the instrument to determine if it reflects the current research and theory on burnout.

When the Maslach Burnout Inventory was developed in 1981, it helped to consolidate the then current information on burnout into a measurement instrument. This was a major step forward in burnout research. Since that time, there has been considerable agreement about the meaning of burnout. Perhaps the time has come for a critical examination of the theoretical basis and effectiveness of this instrument, in light of recent research.

Practice

Several implications arising from the findings of this study are of special interest to senior educational administrators and school boards, and -- because it affects their personal well being -- school principals themselves.

The findings of this study indicated that the older the principal, the longer he had been a principal, and the longer the principal has been in the same school, the greater the degree of burnout experienced.

It may be, as Veninga (1979) suggests, that under these circumstances burnout may be more a result of boredom and routinization than job demands and that the principals structure their administrative actions to promote their own security, minimize problems and resist change. If this is in fact the case, then perhaps steps should be taken to prevent the emergence of routine and boredom in the job. It may be reasonable to suggest that principals should move every few years so that they can remain actively involved in a productive school situation and not begin to sense a reduction in personal accomplishment.

According to the findings of this study, principals who have successfully pursued graduate training in educational administration experience a greater sense of personal accomplishment in their jobs. This suggests that principals may be more actively involved in the schools if they have successfully pursued and completed graduate training in educational administration. The graduate training itself may not be the important factor, but there does appear to be an argument for employing principals who have successfully completed graduate training in educational administration since it has been shown to be related to lower degrees of burnout.

Principals who were actively involved in supervision of teachers had a greater sense of personal accomplishment. This suggests that either the supervision itself or the rapport that is generated or knowledge that is obtained through supervision may provide principals with a considerable feeling of personal accomplishment. Therefore supervision of teachers should be encouraged not only because it may improve the quality of performance among teachers being supervised, but because it may reduce burnout among principals doing the supervising.

Opportunities for promotion were a factor that correlated with reduced levels of burnout. This suggests that school boards and senior administrators should try to include as part of their school organizations as many opportunities as possible for change and promotion among school principals to ensure that principals are not forced into dead-end career situations.

The findings also indicate that greater frequency of contact with agencies outside the school system correlates with reduced levels of burnout. It may, therefore, be important for school systems to encourage community involvement and discourage insularity among principals. Doing so may enhance the personal satisfaction, increase the sense of personal accomplishment among principals and reduce burnout.

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APPENDICES

APPENDIX 1

THE QUESTIONNAIRE

P.O. Box 833
Port Hawkesbury, Nova Scotia
BOE 2VO
October 1, 1983

Dear Fellow Principal:

I am conducting research on the topic of the principalship in Nova Scotia as part of the thesis requirement for the doctoral program in Educational Administration at the University of Alberta. I was a full time student at the University of Alberta during 1982-83 and have returned to Nova Scotia to resume my duties as principal of the Strait Area Education Recreation Center in Port Hawkesbury. The data collected through the enclosed questionnaire will become the basis of the doctoral dissertation.

You are one of a number of principals from across the province selected to participate in the study. I realize that you are busy but it is important to obtain responses from the majority of principals if the results are to be meaningful. Your assistance in completing the questionnaire will help in obtaining a more accurate picture of the job of the principal in this province.

When you have completed the questionnaire please return it in the stamped and self-addressed envelope included in the packet. A reply card is enclosed as well. When you mail the questionnaire please post the reply card at the same time. This lets me know that you have completed the questionnaire and that no further follow up is needed. In this way there is no requirement to identify respondents with their replies yet non-returns can be followed up.

Thank you for your assistance in this research project.

Sincerely,
Murdock MacPherson
Murdock MacPherson

PRINCIPAL JOB SURVEY

A QUESTIONNAIRE ON JOB CHARACTERISTICS, PROFESSIONAL BACKGROUND, ATTITUDES, AND FEELINGS OF SCHOOL PRINCIPALS

October 1983

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PRINCIPAL JOB SURVEY

PART I: BACKGROUND INFORMATION:

The following questions are designed to obtain information about your professional background and about your school and community. Please answer all questions by placing a check mark in the appropriate response block.

$\frac{1}{1\text{-}4}$

	under 30	30-39	40-49	50-59	60+	
1. Please indicate your age.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	5

	none	1-25%	26-50%	51-75%	76-100%	
2. What percentage of time do you spend in classroom teaching?	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6

	none	some	diploma	masters	PhD	
3. How much graduate training (after B.Ed.) have you had in educational administration?	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	7

	1-5 years	6-10	11-15	16-20	21+	
4. How many years, including the current year, have you been a principal?	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	8

	1-2 years	3-4	5-6	7-8	9+	
5. How many years, including the current year, have you been principal of the school in which you now work?	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	9

	primary to 6	7-9	10-12	primary to 9	7-12	
6. What are the grades taught in your school?	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	
	primary to 12	vocational				
	6 ☐	7 ☐				10

	1-100	101-200	201-300	301-400	401-500	
7. How many students are enrolled in your school?	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	
	501-600	601-700	701-800	801-900	900+	
	6 ☐	7 ☐	8 ☐	9 ☐	10 ☐	11

PAGE TWO

8. What type of community is your school located in?
rural 1 ☐ village 2 ☐ town 3 ☐ city 4 ☐ 12

9. In relation to other principals whom you know, how would you rate your desire for promotion?
very low 1 ☐ low 2 ☐ moderate 3 ☐ high 4 ☐ very high 5 ☐ 13

10. How would you rate your opportunities for promotion within your school system?
poor 1 ☐ fair 2 ☐ moderate 3 ☐ good 4 ☐ excellent 5 ☐ 14

11. Do you feel that the school board administration allows you to operate your school as you see fit?
rarely 1 ☐ seldom 2 ☐ occasionally 3 ☐ frequently 4 ☐ usually 5 ☐ 15

12. Do you supervise teachers in their classrooms and evaluate them?
rarely 1 ☐ seldom 2 ☐ occasionally 3 ☐ frequently 4 ☐ very frequently 5 ☐ 16

13. In your job, how often must you deal with groups or agencies outside the school system?
rarely 1 ☐ seldom 2 ☐ occasionally 3 ☐ frequently 4 ☐ very frequently 5 ☐ 17

14. If you were free to choose would you tend to...

1 ☐ stay in the same job?

2 ☐ change schools?

3 ☐ change to another job in education?

4 ☐ change fields completely? 18

PART II: VIEW OF THE JOB:

The following section contains 22 statements about job related feelings. Please read each statement carefully and decide if you feel this way about your job. If you have never had this feeling write "0" (zero) in both the "how often" and "how strong" columns before the statement. If you have had this feeling indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. Then decide how strong the feeling is when you experience it by writing the number (from 1 to 7) that best describes how strong you feel about it.

Example:

HOW OFTEN:	0 Never	1 A few times a year or less	2 Once a month or less	3 A few times a month	4 Once a week	5 A few times a week	6 Every day	
HOW STRONG:	0 Never	1 Very mild, barely noticeable	2	3	4 Moderate	5	6	7 Major, very strong

HOW OFTEN	HOW STRONG	
0–6	0–7	Statement:
____	____	I feel depressed at work.

If you *never* feel depressed at work, you would write the number "0" (zero) on both lines. If you *rarely* feel depressed at work (a few times a year or less), you would write the number "1" on the line under the heading "HOW OFTEN." If your feelings of depression are *fairly* strong, but not as strong as you can imagine, you would write a "6" under the heading "HOW STRONG." If your feelings of depression are very mild, you would write a "1."

THE MASLACH BURNOUT INVENTORY

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PART III: JOB CHARACTERISTICS:

The following statements describe some specific characteristics about your particular job. For each characteristic you are asked to give a rating using the following scale.

Rate how true the characteristic is of your particular job, and enter the number you select in the space provided below.

Definitely NOT TRUE of my job	1	2	3	4	5	6	7	Extremely TRUE of my job

2
1-4

	HOW TRUE	
1. I have clear, planned goals for my job.	(___)	5
2. I know that I have divided my time properly.	(___)	6
3. I know what my responsibilities are.	(___)	7
4. I know exactly what is expected of me.	(___)	8
5. I feel certain about how much authority I have on the job.	(___)	9
6. Explanation is clear of what has to be done.	(___)	10
7. I have to do things that should be done differently.	(___)	11
8. I receive an assignment without the manpower to complete it.	(___)	12
9. I have to buck a rule or policy in order to carry out my assignment.	(___)	13
10. I work with two or more groups who operate quite differently.	(___)	14
11. I receive incompatible requests from two or more people.	(___)	15
12. I do things that are apt to be accepted by one person and not by others.	(___)	16
13. I receive an assignment without adequate resources and materials to execute it.	(___)	17
14. I work on unnecessary things.	(___)	18

PART IV: JOB STRESS AND PERSONAL LIFE:

1. On the average how stressful do you find your job? 19

not stressful	mildly stressful	moderately stressful	very stressful	extremely stressful
1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

2. In general, how would you describe situations that you have encountered in your personal life over the past two years? 20

not stressful	mildly stressful	moderately stressful	very stressful	extremely stressful
1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

3. To what extent are your evenings and weekends devoted to personal interests unrelated to school work? 21

rarely	seldom	occasionally	frequently	usually
1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

4. When you are away from school, to what extent do you find yourself thinking or worrying about school concerns? 22

rarely	seldom	occasionally	frequently	usually
1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

5. What aspects or tasks of your job as a school principal do you find to be most stressful? 23-32

6. What kinds of activities do you engage in away from school that you consider to be most relaxing? 33-42

THANK YOU FOR COMPLETING THE QUESTIONNAIRE

APPENDIX 2

SCHOOLS OF NOVA SCOTIA 1982-83

SCHOOLS OF NOVA SCOTIA 1982-83

SCHOOL TYPE	SCHOOL SIZE 1-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	900+	TOTAL
primary-6	78	112	70	36	24	12	4	3	-	-	339
grade 7-9	2	1	9	12	13	6	3	1	-	-	47
grade 10-12	-	-	1	1	2	1	3	-	3	12	23
primary-9	7	18	15	19	12	6	3	3	-	-	83
grade 7-12	-	2	6	3	9	7	3	4	3	7	44
primary-12	-	4	3	6	4	3	4	1	-	1	26
vocational	-	1	2	3	2	3	-	1	-	1	13
other	2	-	-	-	-	-	-	-	-	-	2
TOTAL	89	138	106	80	66	38	20	13	6	21	577

APPENDIX 3

SAMPLE FOR PRINCIPAL QUESTIONNAIRE

SAMPLE FOR PRINCIPAL QUESTIONNAIRE

SCHOOL TYPE	SCHOOL SIZE										
	1-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900	900+	TOTAL
primary-6	10*	10*	10*	10*	10*	10*	4	3	-	-	67
grade 7-9	2	1	9	10*	10*	6	3	1	-	-	42
grade 10-12	-	-	1	1	2	1	3	-	3	10*	21
primary-9	7	10*	10*	10*	10*	6	3	3	-	-	59
grade 7-12	-	2	6	3	9	7	3	4	3	7	44
primary-12	-	4	3	6	4	3	4	1	-	1	26
vocational	-	1	2	3	2	3	-	1	-	1	13
TOTAL	19	28	41	43	47	36	20	13	6	19	272

* Random Sampling

APPENDIX 4

LETTER TO DEPARTMENT OF EDUCATION

FACULTY OF EDUCATION
DEPARTMENT OF EDUCATIONAL
ADMINISTRATION

QUAECUMQUE VERA

THE UNIVERSITY OF ALBERTA
EDMONTON, CANADA
T6G 2G5

Office 7-130F
April 21, 1983

Mr Michael J. Woodford
Assistant Chief Director
Public School Operations
Nova Scotia Department of Education
P.O. Box 578
Halifax, Nova Scotia

Dear Mr Woodford:

I am a Nova Scotian high school principal on sabbatical leave from the Inverness District School Board. At the present time I am working toward a Ph. D. in Educational Administration at the University of Alberta. I will have completed most of my course work by September 1983 and will be returning to Nova Scotia to resume the principalship of the Strait Area Education Recreation Center in Port Hawkesbury. During the 1983-84 school year I would like to carry out research among Nova Scotian school principals that would become the basis of my doctoral dissertation.

The topic that I plan to investigate is job stress of school principals with particular reference to perceived levels of role conflict, role ambiguity and burnout. A number of background variables (i.e., age, experience, school size, etc) will also be examined.

At the present time the proposal for the study is in the final stages of preparation and it is anticipated that a candidacy oral with the faculty committee will take place in early July. At that time formal university approval for the study should be granted.

The reason for this letter is to request permission to contact the principals of Nova Scotia to complete a brief questionnaire on the study topic. At the present time it is anticipated that all principals of all schools listed in the Directory of Schools for Nova Scotia will be contacted. Questionnaires would be mailed in October 1983 with one follow up letter two weeks later.

At this time I am requesting approval in principle. If further information is required it will be provided upon request.

Sincerely,

Murdock MacPherson

APPENDIX 5

LETTER FROM DEPARTMENT OF EDUCATION

DEPARTMENT OF EDUCATION
NOVA SCOTIA

SENIOR MANAGEMENT

May 3, 1983

Mr. Murdock MacPherson
Faculty of Education
The University of Alberta
Edmonton, Alberta
T6G 2G5

Dear Mr. MacPherson:

Thank you for your letter of April 21, 1983 in which you request approval in principle to carry out research among Nova Scotian school principals as a basis of your doctoral dissertation.

I can think of no valid reason why permission for such a course of action would be withheld provided as always that you receive the co-operation of those principals whom you contact.

I wish you every success in soliciting the desired information and on the preparation of your dissertation.

Yours truly,

M. J. Woodford
Chief Director
Public School Operations

MJW/mmc

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P. O. BOX 578 HALIFAX, NOVA SCOTIA B3J 2S9

APPENDIX 6

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Date 4/25/83

APPENDIX 7

SUMMARY OF T-TESTS ON IDENTIFIED JOB STRESSORS

Table 1

T-Tests for Emotional Exhaustion Frequency Classified According to Principals' Identified Sources of on the Job Stress

Job Stressor	N	Mean	S.D.	T-Value	Probability
Job Demands	170 50	12.41 15.23	7.92 9.03	-2.14	.034*
Parents	176 44	12.95 13.45	8.20 8.56	- .35	.724
Students	174 46	12.85 13.80	8.09 8.91	1.21	.490
Teacher Evaluation	205 15	12.94 14.53	8.31 7.53	- .72	.474
Cutbacks	196 24	13.21 11.79	8.44 6.52	.79	.428
Central Administration	190 30	12.94 13.74	8.41 7.25	- .49	.626
Getting Teachers to do Their Jobs	203 17	12.76 16.52	8.21 8.25	-1.81	.071
Staff Relations	184 36	12.72 14.77	8.15 8.70	-1.37	.173
Mediating Disputes	203 17	12.92 14.66	8.32 7.48	- .83	.405
Student Achievement	207 13	13.05 13.14	8.20 9.42	- .04	.969
Teaching and Administration	209 11	12.97 14.67	8.27 8.04	- .66	.507

Table 2

T-Tests for Emotional Exhaustion Strength Classified According to Principals' Identified Sources of on the Job Stress

Job Stressor	N	Mean	S.D.	T-Value	Probability
Job Demands	169	18.08	11.13	-1.20	.233
	50	20.30	12.81		
Parents	175	18.52	11.58	- .18	.861
	44	18.86	11.54		
Students	173	18.16	11.55	-1.07	.287
	46	20.20	11.52		
Teacher Evaluation	204	18.49	11.52	- .49	.626
	15	20.00	12.12		
Cutbacks	195	18.42	11.43	- .63	.529
	24	20.00	12.60		
Central Administration	189	18.65	11.73	.18	.856
	30	18.23	10.49		
Getting Teachers to do Their Jobs	202	18.42	11.66	- .74	.460
	17	20.58	10.12		
Staff Relations	183	18.15	11.68	-1.26	.209
	36	20.80	10.72		
Mediating Disputes	202	18.28	11.65	-1.38	.169
	17	22.30	9.75		
Student Achievement	206	18.61	11.65	.13	.900
	13	18.20	10.18		
Teaching and Administration	208	18.62	11.62	.15	.882
	11	18.09	10.38		

Table 3

T-Tests for Depersonalization Frequency Classified According to Principals' Identified Sources of on the Job Stress

Job Stressor	N	Mean	S.D.	T-Value	Probability
Job Demands	170 49	4.61 4.77	3.57 3.51	- .27	.787
Parents	175 44	4.59 4.88	3.54 3.62	- .48	.629
Students	173 46	4.48 5.28	3.58 3.41	-1.35	.178
Teacher Evaluation	204 15	4.62 5.00	3.52 4.12	- .39	.697
Cutbacks	195 24	4.64 4.70	3.62 3.01	- .08	.937
Central Administration	189 30	4.55 5.30	3.49 3.95	-1.07	.285
Getting Teachers to do Their Jobs	202 17	4.61 5.11	3.52 3.98	- .56	.577
Staff Relations	183 36	4.43 5.77	3.56 3.36	-2.09	.038*
Mediating Disputes	202 17	4.66 4.47	3.65 2.42	.22	.825
Student Achievement	206 13	4.66 4.53	3.61 2.63	.12	.904
Teaching and Administration	208 11	4.67 4.20	3.56 3.46	.43	.668

Table 4

T-Tests for Depersonalization Strength Classified According to Principals' Identified Sources of on the Job Stress

Job Stressor	N	Mean	S.D.	T-Value	Probability
Job Demands	169	6.97	6.09	.18	.855
	50	6.80	5.98		
Parents	175	7.07	6.23	.65	.513
	44	6.40	5.33		
Students	173	6.48	5.76	-2.15	.033*
	46	8.63	6.85		
Teacher Evaluation	204	6.92	6.08	- .16	.872
	15	7.18	5.85		
Cutbacks	195	6.66	5.74	-1.46	.156
	24	9.12	7.97		
Central Administration	189	6.91	6.17	- .12	.901
	30	7.06	5.36		
Getting Teachers to do Their Jobs	202	7.00	6.13	.54	.590
	17	6.17	5.21		
Staff Relations	183	6.81	6.04	- .70	.486
	36	7.58	6.14		
Mediating Disputes	202	6.91	6.15	- .22	.826
	17	7.25	4.92		
Student Achievement	206	6.98	6.21	.87	.392
	13	6.23	2.68		
Teaching and Administration	208	7.03	6.13	.97	.331
	11	5.20	4.02		

Table 5

T-Tests for Personal Accomplishment Frequency Classified According to Principals' Identified Sources of on the Job Stress

Job Stressor	N	Mean	S.D.	T-Value	Probability
Job Demands	169 50	37.05 38.84	7.55 5.92	-1.75	.083
Parents	175 44	37.49 37.35	7.37 6.78	.12	.905
Students	173 46	37.39 37.74	7.65 5.50	- .35	.729
Teacher Evaluation	204 15	37.25 40.42	7.38 4.08	-1.65	.013*
Cutbacks	195 24	37.41 37.90	7.22 7.59	- .31	.753
Central Administration	190 29	37.72 35.78	7.11 8.01	1.34	.181
Getting Teachers to do Their Jobs	202 17	37.53 36.64	7.21 7.73	.49	.628
Staff Relations	183 36	37.47 37.44	7.47 6.04	.02	.980
Mediating Disputes	202 17	37.73 34.33	7.05 8.83	1.87	.063
Student Achievement	206 13	37.45 37.69	7.28 6.86	- .11	.909
Teaching and Administration	208 11	37.49 36.87	7.28 6.74	.28	.780

Table 6

T-Tests for Personal Accomplishment Strength Classified According to Principals' Identified Sources of on the Job Stress

Job Stressor	N	Mean	S.D.	T-Value	Proba-bility
Job Demands	168	39.55	7.71	-1.52	.129
	50	41.45	7.77		
Parents	174	40.03	7.84	.16	.873
	44	39.82	7.45		
Students	172	40.17	8.14	.79	.429
	46	39.30	6.10		
Teacher Evaluation	203	39.82	7.88	-1.20	.232
	15	42.30	5.34		
Cutbacks	194	39.90	7.58	- .49	.624
	24	40.72	9.11		
Central Administration	189	40.15	7.74	.79	.429
	29	38.93	7.81		
Getting Teachers to do Their Jobs	201	40.09	7.82	.68	.498
	17	38.76	6.88		
Staff Relations	182	40.08	7.92	.40	.690
	36	39.51	6.87		
Mediating Disputes	201	40.22	7.59	1.51	.133
	17	37.28	9.21		
Student Achievement	205	39.99	7.85	- .00	.991
	13	40.00	6.00		
Teaching and Administration	207	40.06	7.81	.61	.541
	11	38.59	6.64		

APPENDIX 8

SUMMARY OF T-TESTS ON LEISURE TIME ACTIVITIES

Table 1

T-Tests for Emotional Exhaustion Frequency Classified According to Principals' Identified Leisure Time Activities

Leisure Time Activity	N	Mean	S.D.	T-Value	Probability
Reading	158	13.06	8.33	.01	.989
	62	13.04	8.13		
Socializing/Theatre/Dance/Cards	156	13.40	8.27	.96	.336
	64	12.21	8.22		
Sports/Sailing/Golf	111	13.45	8.56	.73	.468
	109	12.64	7.95		
Gardening/Farming/Outdoors	156	12.71	8.39	- .97	.333
	64	13.90	7.91		
Fishing/Hunting/Camping/Walking/Running	153	13.47	8.50	1.12	.262
	67	12.11	7.63		
Community Service/Music/Choir/Church	155	12.77	8.31	- .77	.440
	65	13.72	8.15		
Woodworking/Handcrafts/Hobbies	176	13.08	8.40	.10	.919
	44	12.94	7.75		
Family	190	13.27	8.47	.97	.334
	30	11.70	6.67		
Travel	193	12.91	8.34	- .66	.509
	27	14.04	7.69		

Table 2

T-Tests for Emotional Exhaustion Strength Classified According to Principals' Identified Leisure Time Activities

Leisure Time Activity	N	Mean	S.D.	T-Value	Probability
Reading	157 62	18.37 19.15	11.97 10.44	- .45	.652
Socializing/Theatre/ Dance/Cards	155 64	18.99 17.61	11.57 11.50	.81	.422
Sports/Sailing/Golf	110 109	18.73 18.45	12.23 10.86	.18	.854
Gardening/Farming/ Outdoors	155 64	18.06 19.88	11.43 11.81	-1.06	.289
Fishing/Hunting/Camping/ Walking/Running	152 67	18.26 19.35	11.23 12.28	- .64	.520
Community Service/Music/ Choir/Church	154 65	18.29 19.30	11.39 11.96	- .59	.555
Woodworking/Handcrafts/ Hobbies	175 44	19.06 16.72	12.03 9.24	1.20	.231
Family	189 30	18.95 16.33	11.66 10.72	1.16	.249
Travel	192 27	18.42 19.79	11.70 10.45	- .58	.566

Table 3

T-Tests for Depersonalization Frequency Classified According to Principals' Identified Leisure Time Activities

Leisure Time Activity	N	Mean	S.D.	T-Value	Probability
Reading	157 62	4.78 4.32	3.56 3.53	.87	.387
Socializing/Theatre/ Dance/Cards	156 63	4.89 4.06	3.59 3.42	1.57	.119
Sports/Sailing/Golf	110 109	4.55 4.75	3.31 3.79	- .42	.678
Gardening/Farming/ Outdoors	155 64	4.67 4.59	3.55 3.58	.16	.872
Fishing/Hunting/Camping/ Walking/Running	152 67	4.73 4.46	3.69 3.24	.53	.598
Community Service/Music/ Choir/Church	155 64	4.44 5.15	3.56 3.51	-1.34	.180
Woodworking/Handcrafts/ Hobbies	176 43	4.65 4.66	3.58 3.49	- .03	.976
Family	189 30	4.69 4.37	3.64 3.01	.46	.645
Travel	192 27	4.58 5.14	3.50 3.94	- .77	.442

Table 4

T-Tests for Depersonalization Strength Classified According to Principals' Identified Leisure Time Activities

Leisure Time Activity	N	Mean	S.D.	T-Value	Probability
Reading	157 62	7.06 6.62	6.05 6.10	.49	.627
Socializing/Theatre/ Dance/Cards	155 64	7.31 6.02	6.15 5.76	1.44	.151
Sports/Sailing/Golf	110 109	6.70 7.17	5.97 6.16	- .58	.560
Gardening/Farming/ Outdoors	155 64	6.95 6.90	6.18 5.82	.05	.960
Fishing/Hunting/Camping/ Walking/Running	152 67	6.62 7.66	5.75 6.67	-1.17	.242
Community Service/Music/ Choir/Church	154 65	6.77 7.32	5.93 6.37	- .62	.539
Woodworking/Handcrafts/ Hobbies	175 44	6.97 6.79	6.19 5.55	.17	.861
Family	189 30	6.94 6.87	6.10 5.82	.06	.951
Travel	192 27	6.81 7.81	6.07 5.99	- .80	.423

Table 5

T-Tests for Personal Accomplishment Frequency Classified According to Principals' Identified Leisure Time Activities

Leisure Time Activity	N	Mean	S.D.	T-Value	Probability
Reading	158 61	37.04 38.57	7.79 5.48	-1.64	.103
Socializing/Theatre/ Dance/Cards	156 63	37.61 37.09	7.44 6.76	.48	.633
Sports/Sailing/Golf	110 109	37.47 37.46	6.65 7.83	.01	.995
Gardening/Farming/ Outdoors	115 64	37.09 38.38	7.90 5.27	-1.41	.159
Fishing/Hunting/Camping/ Walking/Running	152 67	37.00 38.51	7.38 6.84	-1.42	.157
Community Service/Music/ Choir/Church	154 65	37.64 37.03	7.07 7.67	.57	.571
Woodworking/Handcrafts/ Hobbies	176 43	37.46 37.48	7.38 6.71	- .01	.988
Family	189 30	37.30 38.48	7.29 6.98	- .82	.411
Travel	192 27	37.27 38.86	7.41 5.83	-1.07	.287

Table 6

T-Tests for Personal Accomplishment Strength Classified According to Principals' Identified Leisure Time Activities

Leisure Time Activity	N	Mean	S.D.	T-Value	Probability
Reading	157	39.96	8.40	- .10	.922
	61	40.06	5.77		
Socializing/Theatre/ Dance/Cards	154	40.25	7.84	.78	.436
	64	39.35	7.53		
Sports/Sailing/Golf	110	39.82	7.19	- .32	.753
	108	40.16	8.31		
Gardening/Farming/ Outdoors	155	39.83	8.41	- .55	.581
	63	40.38	5.85		
Fishing/Hunting/Camping/ Walking/Running	152	39.45	8.10	-1.56	.121
	67	41.22	6.75		
Community Service/Music/ Choir/Church	153	39.87	7.61	- .33	.742
	65	40.25	8.11		
Woodworking/Handcrafts/ Hobbies	175	40.40	7.77	1.58	.116
	43	38.32	7.50		
Family	188	39.75	7.91	-1.11	.268
	30	41.45	6.54		
Travel	191	39.81	7.87	- .89	.372
	27	41.24	6.81		

APPENDIX 9

SUMMARY OF REGRESSION ANALYSIS FOR ALL VARIABLES EXAMINED

Summary of Regression Analysis for all Variables Examined

	Emotional Exhaustion Frequency	Emotional Exhaustion Strength	Depersonalization Frequency	Depersonalization Strength	Personal Accomplishment Frequency	Personal Accomplishment Strength
Personal Variables	13.4	14.1	5.4	6.7	13.7	19.0
Situational Variables	5.6	11.2	9.5	10.1	12.2	13.5
Personal and Situational Variables	18.2	22.2	15.4	18.0	22.0	26.9
Overall Job Stress	22.5	16.3	8.5	1.1	-	-
Role Conflict	4.2	5.5	4.6	5.0	-	-
Worry About School	2.8	1.9	-	-	-	-
Personal Life Stress	1.1	-	-	-	-	1.1
Role Ambiguity	-	-	2.0	-	16.0	17.0
Getting Teachers To Do Their Jobs	-	-	-	.9	-	-
Mediating Disputes	-	-	-	-	4.1	1.9
Total	48.8	45.9	30.5	25.0	42.1	46.9